

NEWHALL RANCH TRAFFIC ANALYSIS

Prepared for:

Newhall Ranch Company

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Chapter 1.0

INTRODUCTION

This report describes the results of a traffic analysis carried out for the proposed Newhall Ranch development. The purpose of the study is to provide the necessary documentation to support the General Plan Amendment and Specific Plan being prepared for the project and to serve as a technical source for the Newhall Ranch Environmental Impact Report.

STUDY SCOPE

The Newhall Ranch project is located west of the I-5 Freeway and generally south of SR-126 in unincorporated Los Angeles County. The project area extends west to the Ventura County line and the south boundary extends to the ridge of the Santa Susana mountains. Comprising approximately 11,960 acres, it is planned to have 21,615 dwelling units and associated industrial and commercial uses when fully built out. A large portion of the area will remain in permanent open space.

Consistent with analyses carried out for General Plan Amendments and Specific Plans, the traffic forecasts used in the analysis are for a long-range time frame. This assumes buildout of the City of Santa Clarita General Plan and the County of Los Angeles General Plan in this area, including completion of the associated Master Plan of Highways. The cumulative impact analysis assumes buildout of the City and County General Plans plus pending general plan amendments. The traffic analysis compares long-range buildout conditions without the proposed project to future traffic conditions with the project.

The study area used for the analysis is illustrated in Figure 1-1. Shown here is the project site and the impact analysis study area. The study area is where impacts of the project on individual roadway links are identified, and includes the portion of the adjoining circulation system which is

measurably impacted by the project. As can be seen here, it extends from just west of the Ventura County line to east of San Fernando Road. The north and south boundaries encompass the existing and future urbanized areas of Valencia and Santa Clarita. A portion of the study area is in the City of Santa Clarita and the remainder is in unincorporated Los Angeles County.

Subjects covered in the analysis include impacts to the surrounding arterial and freeway system and the proposed on-site circulation. A comprehensive transportation improvement program is proposed as mitigation for the project. Special issues such as Congestion Management Program (CMP) requirements, and changes to the current Master Plan of Highways for the Santa Clarita Valley are also discussed.

METHODOLOGY

The traffic analysis is based on a set of long-range traffic forecasts for the study area roadway system. These long-range traffic forecasts were produced using the Santa Clarita Valley Consolidated Traffic Model (SCVCTM). For the detailed on-site traffic data, the Newhall Ranch subarea model was used. Brief descriptions of each of these follow.

SCVCTM Traffic Forecasts

The SCVCTM was developed jointly by the City of Santa Clarita and the County of Los Angeles Public Works Department. It is based on standardized modeling techniques in which future land uses in an area are quantified and the corresponding traffic volumes are estimated. Hence, for any given future land use scenario for the Santa Clarita Valley area, the model will produce future traffic volumes on the future roadways in this area.

The modeled area extends from the Ventura County line east to where the Antelope Freeway (SR-14) passes out of the Santa Clarita Valley near Vasquez Rocks Park. The northern boundary is the Grapevine area north of Castaic and to the south the model area extends to the confluence of the I-5 and SR-14 freeways south of Newhall Pass. In this report, the SCVCTM area is often referred to as the "Valley" and is used to summarize a variety of data from the traffic model.

Since the SCVCTM is developed from regional models prepared by the Southern California Association of Governments (SCAG), it forecasts traffic in a regional context. This means that trips to and from the Santa Clarita Valley, as well as thru-trips are included in the forecasts. The SCVCTM has 1994, interim year, and buildout versions. The latter contains all the land uses in the City and County General Plans (including existing, approved, recorded, pending and open tracts) and was used for preparing the data presented here. For the cumulative analysis, general plan amendments were added to the with-project buildout version of the SCVCTM. Descriptions of the model, including a recent update and validation report, are listed as References 1 and 2 at the end of this chapter.

Newhall Ranch Traffic Model

For detailed on-site analysis, a special sub-area model was prepared by Austin-Foust Associates. This is referred to as the Newhall Ranch Traffic Model (NRTM), and provides a detailed traffic forecasting capability for the project circulation system. The external travel pattern relationships are derived from the SCVCTM, and hence it is directly compatible with the areawide modeling procedures.

The primary purpose of the NRTM is to give a more focused modeling capability for the project area. Detailed intersection evaluation is possible, providing information for signal warrant analyses and peak hour intersection capacity evaluation. A detailed discussion of the NRTM is contained in Appendix B.

Long-Range Setting

Buildout of the Newhall Ranch project will occur over an extended period of time, and will essentially accompany the long term development of the Santa Clarita Valley. Hence, the analysis is carried out for a long-range time frame in which the project and the accompanying valleywide development are all built out. The long-range version of the SCVCTM is thereby used as the appropriate mechanism for preparing future traffic volume forecasts.

The land use database in the long-range version of the model has been compiled by the City and the County to represent future growth as depicted by the City and County General Plans. Hence,

this land use database provides a comprehensive and realistic long-range setting for the impact analysis. In addition, a special "cumulative" analysis was made which included General Plan Amendments that are currently in processing by either the City or the County.

Impact Analysis

To identify project impacts, a comparison is made between future traffic volumes in the study area with and without the project. The current City Circulation Element version of the SCVCTM is run, and then a second run is carried out in which the project is included in the model. The forecast data is in the form of average daily traffic (ADT) volumes on the highway system and the impact analysis is carried out using corresponding volume/capacity (V/C) ratios for each segment of roadway in the study area. Based on the V/C ratios, project impacts are identified and a mitigation program is proposed accordingly. In addition, a special analysis was carried out at key freeway interchanges serving the project, with V/C ratios calculated for each on- and off-ramp at these interchanges. The peak hour modeling capability of the SCVCTM was used for this part of the analysis, so that the ability of each ramp to carry future peak hour traffic could be assessed.

Identification of project impacts involves the application of specific performance criteria. These specify the V/C level and the amount of project traffic that together constitute a project impact. These criteria are discussed in the off-site impact analysis section of Chapter 4.0. The proposed mitigation program addresses all locations that are identified as being impacted.

For the long-range setting used in the traffic analysis, specific assumptions were made with respect to the future transportation system in the Santa Clarita Valley. Two networks, each of which include the County's Master Plan and the City's Circulation Element, were used in this regard. The first is referred to as the City Circulation Element Network since it contains the City of Santa Clarita's Circulation Element as it is currently planned. The second being an Alternative Network which is intended to address potential changes to the Circulation Element in which the future Avenue Tibbitts Bridge over the Santa Clara River is removed. Descriptions of these two long-range highway networks can be found in the next chapter.

STRUCTURE OF THE REPORT

This traffic report is structured in a manner which describes the project and its impacts on a step by step basis, and presents the information in a manner which generally conforms to the organization of the EIR. An outline of the topics covered are as follows:

- Chapter 2.0 - Transportation Setting - This establishes the "setting" in which the project is analyzed. Existing traffic conditions on the study area roadway system are described and then long-range land use and the accompanying transportation system are discussed.
- Chapter 3.0 - Project Description - This chapter contains a description of the proposed project in traffic terms, including estimates of the project trip generation, the geographic pattern of the project trips, and the on-site circulation system designed to serve the project land uses.
- Chapter 4.0 - Impact Analysis - In this chapter, long-range conditions with and without the project are compared. The forecasting methodology as described earlier in this chapter provides the traffic data, and specific performance criteria is used to identify project impacts.
- Chapter 5.0 - Transportation Improvements - To address the impacts identified in Chapter 4.0, a comprehensive transportation improvement program is proposed. It includes both on-site and off-site components.
- Chapter 6.0 - Cumulative Impact Analysis - This chapter discusses general plan amendment applications in a long-range time setting and analyzes the project impact under this scenario.
- Chapter 7.0 - Special Issues - This final chapter addresses special issues which are related to future traffic conditions in the study area, and are therefore addressed in an information context.

Detailed information on various technical aspects of the report are contained in the technical appendices. Resource documents such as descriptions of the SCVCTM and its database are referenced at the end of this chapter, and noted where appropriate as the data sources used in the analysis.

DEFINITIONS

Certain terms used throughout this report are defined below to clarify their intended meaning:

ADT	Average Daily Traffic. Generally used to measure the total two-directional traffic volumes passing a given point on a roadway.
DU	Dwelling Unit. Used in quantifying residential land use.
ICU	Intersection Capacity Utilization. A measure of the volume to capacity ratio for an intersection. Typically used to determine the peak hour level of service for a given set of intersection volumes.
LOS	Level of Service. A scale used to evaluate circulation system performance based on intersection ICU values or volume/capacity ratios of arterial segments.
Peak Hour	This refers to the hour during the AM peak period (typically 7 AM - 9 AM) or the PM peak period (typically 3 PM - 6 PM) in which the greatest number of vehicle trips are generated by a given land use or are traveling on a given roadway.
Tripend	A trip generation measure which represents the total trips entering and leaving a location.
TSF	Thousand Square Feet. Used in quantifying non-residential land uses, and refers to building floor area.
V/C	Volume to Capacity Ratio. This is typically used to describe the percentage of capacity utilized by existing or projected traffic on a segment of an arterial or intersection.
VPD	Vehicles Per Day. Similar to ADT, but more typically applied to trip generation (i.e., the amount of traffic generated by a given amount of land use).
VPH	Vehicles Per Hour. Used for roadway volumes (counts or forecasts) and trip generation estimates. Measures the number of vehicles in a one hour period, typically the AM or PM peak hour.

REFERENCES

1. "Santa Clarita Valley Consolidated Traffic Model Report," County of Los Angeles Department of Public Works, January 1994.
2. "Santa Clarita Valley Consolidated Traffic Model 1995 Update and Validation," City of Santa Clarita and County of Los Angeles Department of Public Works, June 1995.
3. "Newhall Ranch Subarea Traffic Model," Austin-Foust Associates, Inc., April 1995.
4. "Route Concept Report, Route 5" Caltrans District 7, Transportation Planning, June 20, 1991.
5. "Route Concept Report, Route 14" Caltrans District 7, Transportation Planning, January 1991.
6. "Route Concept Report, Route 126" Caltrans District 7, Transportation Planning, January 1991.
7. "Center City Circulation System Study," Meyer, Mohaddes Associates, July 1995.
8. "Hasley Area Traffic Analysis," Austin-Foust Associates, Inc., August 1987.
9. "1995 Final Draft Congestion Management Program for Los Angeles County," Los Angeles County Metropolitan Transportation Authority, October 1995.
10. "A Plan for Los Angeles County, Transportation for the 21st Century," Los Angeles County Metropolitan Transportation Authority, March 1995.
11. "Draft Screencheck Newhall Ranch Specific Plan," Forma, December 1995.

Chapter 2.0

TRANSPORTATION SETTING

This chapter describes the transportation setting for the proposed project. Existing conditions are first summarized, followed by the future background setting against which project impacts are evaluated. The chapter also discusses long-range travel patterns in the study area.

EXISTING CONDITIONS

This discussion of the existing transportation setting for the study area describes the transportation system serving the area (highway and transit) and the current traffic volumes and operating conditions on the highway system. The information thereby provides a point of reference for describing anticipated future conditions in this area.

Existing Highway System

The existing highway system in the study area is illustrated in Figure 2-1. The numbers on each highway segment represent the number of two-way travel lanes, referred to in this study as midblock lanes. The midblock lanes depict the freeway and arterial system as of January 1995. As can be seen here, the primary regional access is via the Golden State Freeway (I-5). The Antelope Valley Freeway (SR-14) serves the eastern edge of the study area, and the two freeways join at a confluence on the south end of the study area. The I-5 freeway in the study area is currently four lanes in each direction.

The study area has a well defined set of arterials which have been evolving in accordance with the County Master Plan of Highways and the City of Santa Clarita Circulation Element. From east to west along the northern part of Newhall Ranch is SR-126, referred to as Henry Mayo Drive. It is currently a two-lane rural highway with one signalized intersection at Wolcott Avenue and a second signalized intersection at Commerce Center Drive. East of the I-5 freeway, Magic Mountain Parkway and Valencia Boulevard connect to the Town Center area and the City of Santa Clarita Civic Center

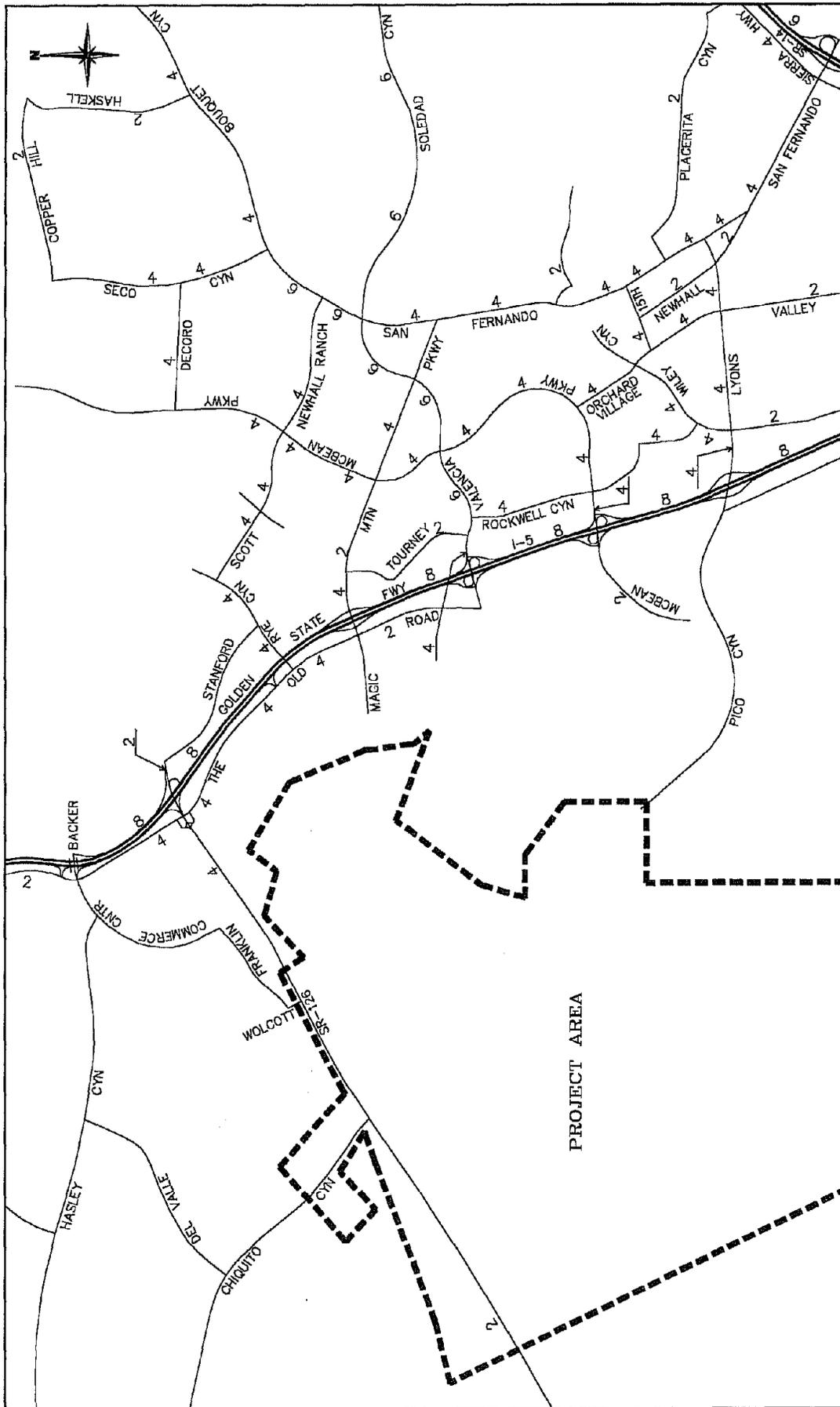


Figure 2-1
EXISTING HIGHWAY SYSTEM (1995)

LEGEND
X MIDBLOCK LANES

located around and adjacent to the triangle formed by Magic Mountain Parkway, Valencia Boulevard, and McBean Parkway. Continuations of the east-west roadways then serve residential areas to the east such as Bouquet Canyon, Saugus, and Canyon Country.

Altogether, five freeway interchanges along I-5 are within the study area and will serve project traffic:

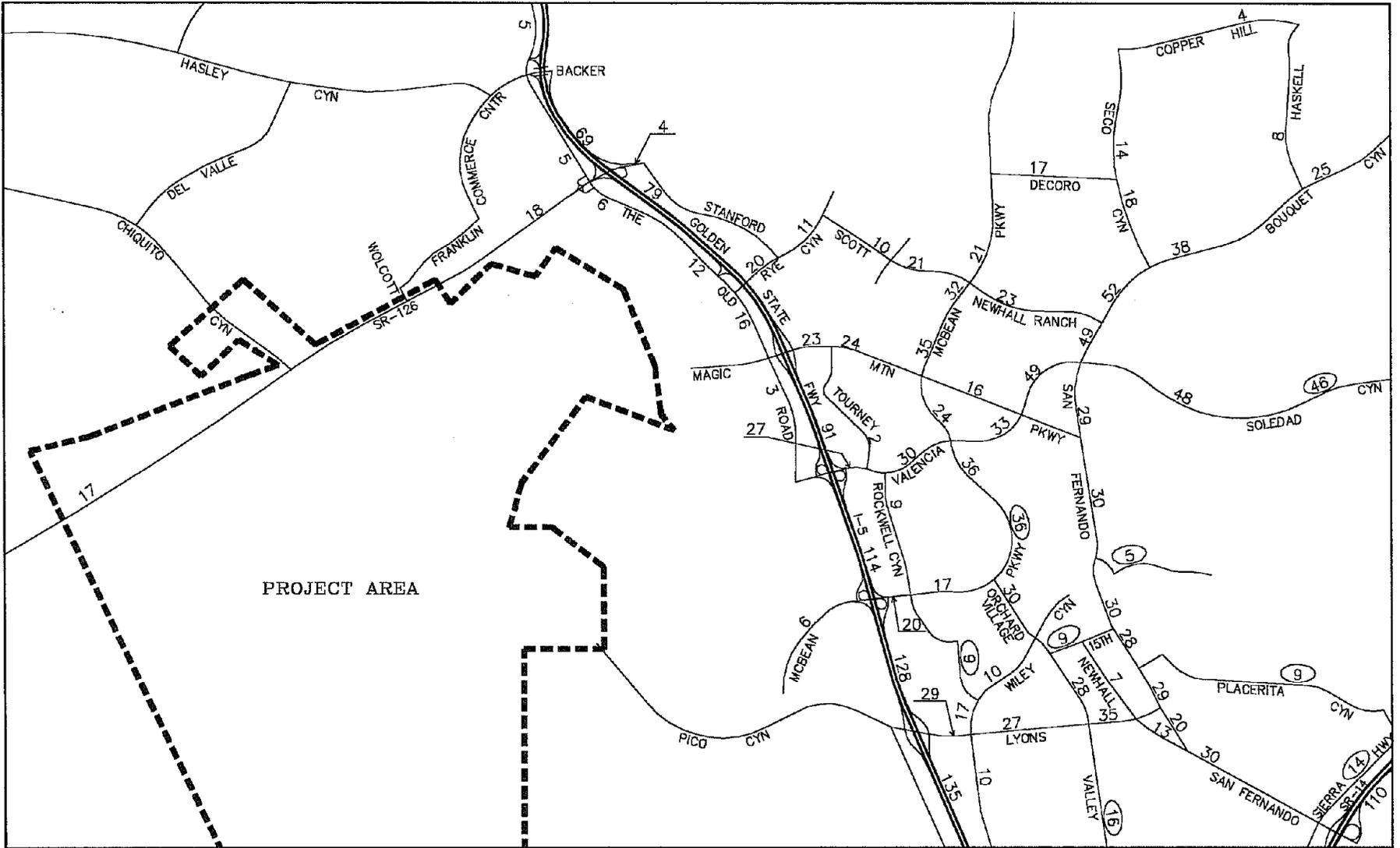
SR-126
Magic Mountain Parkway
Valencia Boulevard
McBean Parkway
Pico Canyon Road/Lyons Avenue

In addition, there are freeway ramps (southbound I-5 only) intersecting with The Old Road just north of Rye Canyon Road between the SR-126 and Magic Mountain Parkway interchanges. The Hasley Canyon Road/I-5 interchange is in the northern part of the study area but does not serve any measurable project traffic.

Existing Traffic Volumes

The existing highway system together with the average daily traffic (ADT) volumes are shown on Figure 2-2. As indicated on the drawing, the 24-hour ADT counts shown are primarily from the January/February 1995 count program carried out for this traffic study. For certain minor locations at some distance from the project site, City of Santa Clarita traffic data was used.

Along the northern edge of the project area, volumes on SR-126 are currently 17,000 ADT at the County line, increasing to 18,000 near I-5. East of the freeway, Magic Mountain Parkway and Valencia Boulevard carry 23,000 ADT and 27,000 ADT respectively, with volumes increasing slightly in proximity to the Town Center area. Bouquet Canyon Road shows the highest volumes, with 52,000 ADT north of Newhall Ranch Road and 49,000 ADT south of Newhall Ranch Road.



LEGEND

XX January/February 1995 Traffic Counts

⊙ November 1994 Traffic Counts from the City of Santa Clarita Traffic Flow Map

Figure 2-2
EXISTING ADT VOLUMES (000s)

Existing Operating Conditions

Within the study area, existing operating conditions on each highway link were evaluated based on ADT volume to capacity (V/C) ratios. The V/C ratios were determined using the following ADT capacity values:

ADT CAPACITY VALUES	
<u>FACILITY TYPE</u>	<u>ADT CAPACITY</u>
Eight-lane Freeway (1-5)	180,000
Eight-lane Expressway	112,000
Six-lane Expressway	84,000
Major Highway (6-lanes)	54,000
Major Highway (4-lanes)	36,000
Major Highway (2-lanes)	18,000
Secondary Highway (4-lanes)	32,000
Secondary Highway (2-lanes)	16,000

These are the representative ADT capacities used by the County of Los Angeles for assessing operating conditions on arterial highway links. The Expressway designation is discussed in detail in Chapter 4.0 for the buildout time frame. Except for Freeways and State Highways, the threshold for acceptable levels of service used in this study is a V/C value of 1.00. Any link where the V/C exceeds 1.00 is considered to be deficient.

The existing ADT volumes and V/C ratios are listed in Table 2-1. As indicated by an asterisk, there are currently four locations where the V/C exceeds 1.00. These are as follows:

- McBean south of Valencia (V/C = 1.01)
- Magic Mountain east of Tourney (V/C = 1.31)
- Lyons east of Orchard Village (V/C = 1.10)
- Bouquet Canyon east of Seco Canyon (V/C = 1.05)

Table 2-1

EXISTING ADT VOLUME SUMMARY

LINK #/LOCATION	VOLUME	CAPACITY	V/C	COUNT DATE
23. The Old Rd n/o Hasley Cyn	5156	16000	.32	2/9/95
25. The Old Rd n/o SR-126	5429	36000	.15	2/9/95
26. The Old Rd s/o SR-126	5619	36000	.16	2/2/95
27. The Old Rd n/o Rye Cyn	11615	36000	.32	1/18/95
28. The Old Rd n/o Magic Mtn	15989	36000	.44	3/2/95
29. The Old Rd s/o Magic Mtn	2943	18000	.16	1/18/95
30. Tournament s/o McBean	8348	28000	.30	1/19/95
35. McBean w/o I-5	5763	18000	.32	1/18/95
36. McBean w/o Rockwell	19964	36000	.55	1/18/95
37. McBean e/o Rockwell	17356	36000	.48	1/18/95
38. McBean s/o Valencia	36308	36000	1.01	2/16/95
*				
39. McBean s/o Magic Mtn	24093	54000	.45	2/9/95
40. McBean n/o Magic Mtn	35253	36000	.98	1/18/95
41. McBean s/o Newhall Ranch	31973	36000	.89	1/18/95
42. McBean n/o Newhall Ranch	21495	32000	.67	1/19/95
49. SR-126 w/o The Old Rd	17747	36000	.49	2/1/95
50. Newhall Ranch Rd e/o I-5	3859	18000	.21	2/22/95
54. Newhall Ranch e/o McBean	23357	36000	.65	1/19/95
63. Rye e/o I-5	20417	32000	.64	2/22/95
64. Rye Cyn e/o Scott	10586	32000	.33	1/17/95
68. Copper Hill e/o Seco Hill	4280	16000	.27	1/30/95
72. Decoro e/o McBean	17125	32000	.54	1/30/95
73. Haskell Cyn n/o Bouquet	8435	16000	.53	1/30/95
74. Seco s/o Copper Hill	13779	32000	.43	1/30/95
75. Seco n/o Bouquet	18261	32000	.57	1/30/95
76. Bouquet Cyn e/o Haskell	25040	36000	.70	1/31/95
78. Bouquet Cyn w/o Seco	51542	54000	.95	1/30/95
79. Bouquet Cyn s/o Newhall Ranch	48569	54000	.90	1/30/95
80. Bouquet n/o Magic Mtn	28948	36000	.80	2/1/95
81. Bouquet s/o Magic Mtn	30017	36000	.83	2/1/95
82. San Fernando s/o Wiley	30175	36000	.84	1/30/95
83. San Fernando n/o Placerita	27765	36000	.77	1/30/95
84. San Fernando s/o Placerita	28872	36000	.80	1/30/95
85. San Fernando s/o Lyons	19794	36000	.55	1/30/95
86. Scott s/o Rye Cyn	10380	32000	.32	1/17/95
87. Ave Scott e/o Dickason	21478	32000	.67	2/22/95
88. Magic Mtn e/o I-5	22516	36000	.63	1/17/95
89. Magic Mtn e/o Tourney	23519	18000	1.31	3/1/95
90. Magic Mtn e/o McBean	15505	36000	.43	2/1/95
93. Tourney n/o Valencia	2461	16000	.15	1/18/95
94. Rockwell n/o McBean	8572	28000	.31	1/18/95
95. Rockwell s/o McBean	9104	28000	.33	11/94 ^A
96. Valencia btwn Tourney/I-5	27188	36000	.76	2/15/95
98. Valencia w/o McBean	29652	54000	.55	1/17/95
99. Valencia w/o Magic Mtn	33391	54000	.62	1/17/95
100. Valencia w/o San Fernando	49417	54000	.92	2/1/95
101. Soledad e/o Bouquet Cyn	47939	54000	.89	1/17/95
102. Wiley s/o Lyons	9618	16000	.60	2/15/95

(Continued)

Table 2-1 (cont)
EXISTING ADT VOLUME SUMMARY

LINK #/LOCATION	VOLUME	CAPACITY	V/C	COUNT DATE
103. Wiley n/o Lyons	17066	32000	.53	2/1/95
104. Wiley e/o Tournament	10436	32000	.33	1/18/95
106. Via Princessa e/o San Fernando	4988	36000	.14	11/94 [^]
108. 15th St e/o Orchard Village	9290	32000	.29	11/94 [^]
109. Newhall n/o Lyons	6994	16000	.44	1/30/95
110. Newhall s/o Lyons	12893	16000	.81	1/18/95
111. San Fernando s/o Newhall	30346	32000	.95	1/30/95
112. Orchard Village s/o McBean	29855	36000	.83	1/18/95
113. Orchard Village s/o Wiley	27741	36000	.77	1/18/95
114. Valley s/o Lyons	15804	16000	.99	11/94 [^]
115. Lyons e/o I-5	28818	32000	.90	1/17/95
116. Lyons e/o Wiley	26617	32000	.83	1/17/95
117. Lyons e/o Orchard Village	35055	32000	1.10 *	1/30/95
119. McBean e/o Orchard Village	35526	36000	.99	11/94 [^]
121. Placerita e/o San Fernando	8595	16000	.66	11/94 [^]
126. Bouquet Cyn e/o Seco	37788	36000	1.05 *	1/30/95
143. Soledad w/o Golden Valley	46373	54000	.86	11/94 [^]
159. Sierra Hwy e/o San Fernando	14088	36000	.39	11/94 [^]
200. I-5 n/o SR-126	69000	180000	.38	1993 Caltrans
201. I-5 s/o Newhall Ranch	79000	180000	.44	1993 Caltrans
202. I-5 n/o Valencia	91000	180000	.51	1993 Caltrans
203. I-5 n/o McBean	114000	180000	.63	1993 Caltrans
204. I-5 s/o McBean	128000	180000	.71	1993 Caltrans
205. I-5 s/o Lyons	135000	180000	.75	1993 Caltrans
206. SR-14 s/o Placerita	110000	135000	.81	1993 Caltrans

Notes: * Currently exceeds V/C of 1.00

Source of Data: Traffic counts were conducted in January/February 1995 except where indicated by a footnote or Caltrans designation.

[^] November 1994 City of Santa Clarita Traffic Flow Map

A reference map for the link numbering system can be found in Appendix C

Level of service ranges: .00 - .60 A
 .61 - .70 B
 .71 - .80 C
 .81 - .90 D
 .91 - 1.00 E
 Above 1.00 F

EXISTING TRANSIT SERVICE

The study area is served by two major transit carriers, the Santa Clarita Valley Transit System operated by the City of Santa Clarita, and Metrolink operated by the Metropolitan Transportation Authority (MTA). The first provides the bus system within the Valley and to some external destinations and the latter provides commuter rail service to areas outside the Valley which are served by the regional Metrolink system.

Figure 2-3 shows the existing transit service. As can be seen, the fixed route bus system provides service throughout the study area. The Metrolink station is located on Soledad Canyon Road east of San Fernando Road, and convenient transfer service is offered between the bus and rail systems.

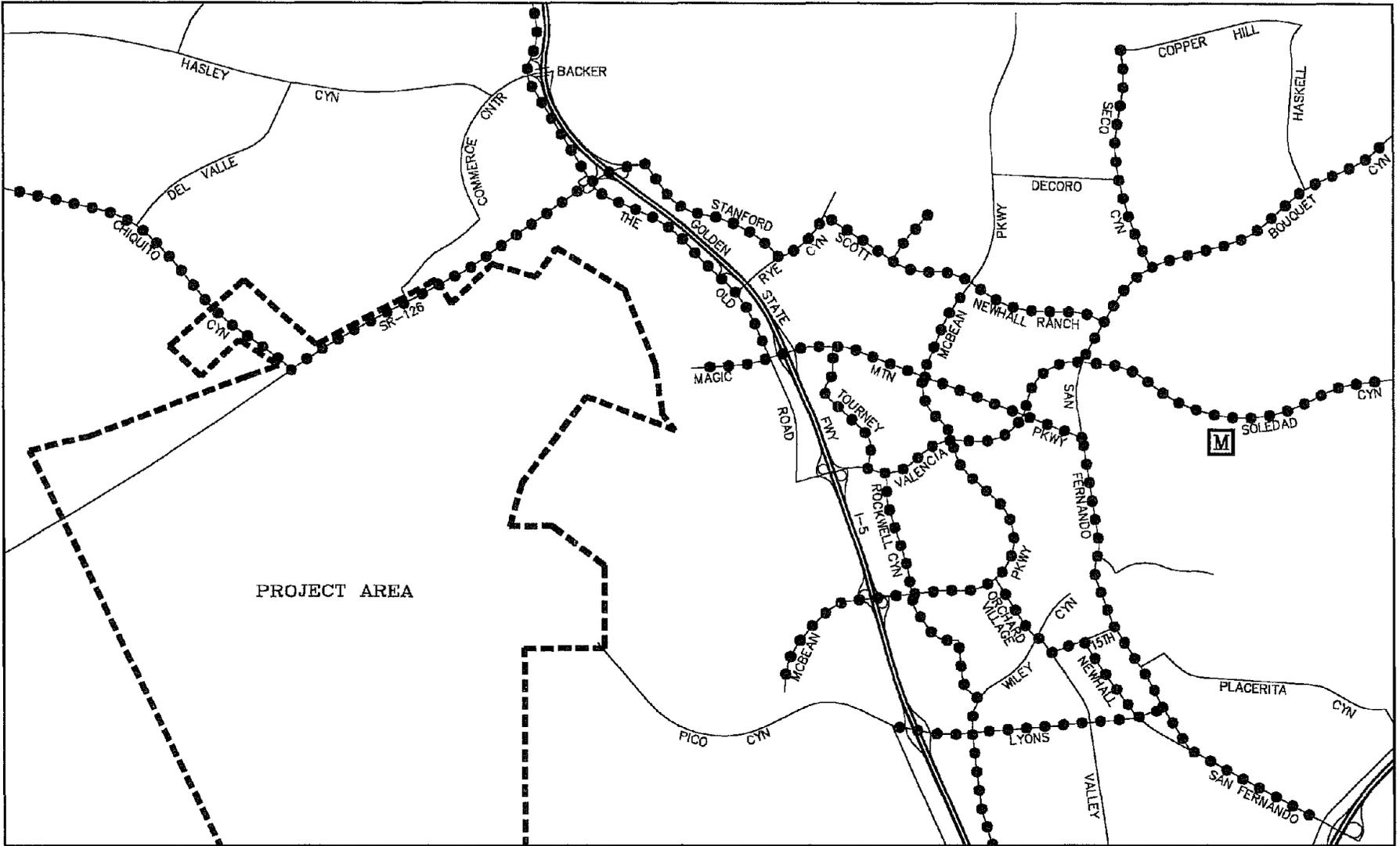
FUTURE SETTING

The Santa Clarita Valley area is projected to have substantial growth over the next twenty years or more, and this anticipated growth is reflected in the City and County General Plans for the area. Accompanying that growth will be additions to the existing circulation system, in the form of new roads, and widening of existing facilities. The following sections describe these changes.

Land Use

As noted in Chapter 1.0, the long-range setting for the analysis assumes buildout of the City and County General Plans in the Santa Clarita Valley. This includes all existing, recorded, approved, pending, and open tracts in the valley. To show what this means in quantitative terms, Table 2-2 gives a summary of existing and future land uses in the traffic model area (see traffic model area description in Chapter 1.0). To assist in the comparison, the projections listed here are separated by City and unincorporated County portions of the area.

The land use summary indicates that there are currently 46,891 dwelling units in the Valley, with 123,877 dwelling units projected for General Plan buildout. Non-residential land uses



LEGEND

- FIXED ROUTE BUS SERVICE
- M** METROLINK TRANSIT CENTER

Figure 2-3
EXISTING TRANSIT SERVICES

Table 2-2

**LAND USE AND TRIP GENERATION SUMMARY
(SCVCTM Area)**

Land Use Category	Units	-- 1994 COUNTY --		-- 1994 CITY --		--- TOTAL ---	
		Amount	ADT	Amount	ADT	Amount	ADT
TOTAL							
1. Single Family Res	DUs	9,699	97,878	18,269	184,362	27,968	282,240
2. Multi-Family Res	DUs	2,457	17,288	16,466	117,711	18,923	134,999
3. Commercial	TSF	536	36,551	5,239	257,461	5,775	294,011
4. Ind/Manufacturing	TSF	432	2,902	12,264	88,041	12,696	90,943
5. Office	TSF	119	1,404	952	15,326	1,071	16,731
6. Schools	EMP	336	4,590	1,625	27,238	1,961	31,828
7. Other	--	--	31,568	--	28,390	--	59,958
TOTAL			192,181		718,529		910,710

Land Use Category	Units	BUILDOUT GP COUNTY		BUILDOUT GP CITY		--- TOTAL ---	
		Amount	ADT	Amount	ADT	Amount	ADT
TOTAL							
1. Single Family Res	DUs	54,442	551,345	32,057	324,647	86,499	875,992
2. Multi-Family Res	DUs	10,750	75,886	26,628	189,579	37,378	265,465
3. Commercial	TSF	6,868	334,964	12,394	623,107	19,262	958,071
4. Ind/Manufacturing	TSF	20,378	141,657	20,732	162,972	41,110	304,629
5. Office	TSF	3,599	42,558	4,858	61,553	8,457	104,111
6. Schools	EMP	1,677	25,739	2,074	33,837	3,751	59,577
7. Other	--	--	66,347	--	29,327	--	95,673
TOTAL			1,238,496		1,425,022		2,663,518

DUs - Dwelling units

TSF - Thousand square feet of floor area

EMP - Employees

ADT - Average daily tripends

(commercial, industrial, and office) are projected to increase from around 19.5 million square feet of floor area today to 68.8 million square feet in the future. The corresponding increase in traffic generation is from 910,710 average daily tripends in 1994 to 2,663,518 at buildout. Detailed land use and trip generation data for the SCVCTM area is tabulated in the traffic model description report (Reference 2 at the end of Chapter 1.0).

Highway System

The City of Santa Clarita Circulation Element is the planned roadway system expected to be in place by buildout of the land uses in the General Plan. The current long-range Circulation Element for the study area is illustrated in Figure 2-4. It has two basic roadway classifications: major highway (four to six lanes), and secondary highway (four lanes, and with less right-of-way than a major).

For the purpose of this analysis, both the current City of Santa Clarita Circulation Element and No Avenue Tibbitts Bridge Alternative Network have been used to examine impacts of Newhall Ranch. Figure 2-5 shows the Alternative Network roadway system. It does not include the connection of Avenue Tibbitts with Magic Mountain Parkway. This connection requires a bridge over the Santa Clara River and it is not known at this time if or when the bridge would be constructed.

The City Circulation Element includes a number of "augmented" roadways. This augmented roadway classification depicts capacity enhancement of an arterial roadway by a variety of discretionary improvements. Typical examples include additional midblock lanes which do not necessarily extend through the intersection, added turn lanes at intersections, and combinations of the above (a description of typical augmented capacity actions can be found in Chapter 5.0). The purpose of providing extra capacity in this manner is to target the improvements to an actual location and its specific characteristics rather than merely widening the roadway (e.g., from six to eight lanes).

The highway network in the Newhall Ranch project area is considered to be the same for both the network alternatives. Pico Canyon Road/Valencia Boulevard passes through the project area from SR-126 and meets the existing connection at I-5. Commerce Center Drive would extend southward from SR-126, intersecting the westward extension of Magic Mountain Parkway. Both Valencia Boulevard and McBean Parkway are shown as extending westward to Pico Canyon Road,

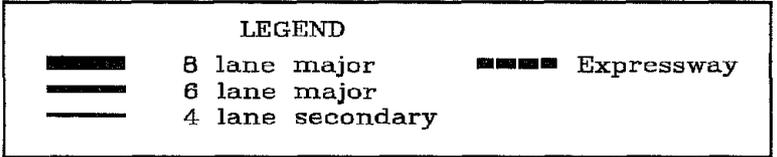


Figure 2-4
CITY OF SANTA CLARITA
GENERAL PLAN CIRCULATION ELEMENT



Figure 2-5
NO TIBBITTS BRIDGE
ALTERNATIVE NETWORK

although both extensions are outside the actual project area. As will be seen later in this report, the Newhall Ranch project proposes to change some of these planned roadways within the project area.

Transit

It can be anticipated that over time, the local bus system will expand as additional development occurs. Unincorporated areas of the Valley are currently served by the Santa Clarita Valley Transit System through a contract with Los Angeles County. This arrangement is anticipated to continue to serve local residents of the area, connecting residential areas with employment and commercial centers. Typically, bus route plans are evaluated on a regular basis, and routes added and/or modified as appropriate. As Newhall Ranch develops, service to that community will be added accordingly.

The Metropolitan Transportation Authority (MTA) oversees transit planning in the Los Angeles County area, and has a long-range plan for future rail transit, including additional service to this area. An eventual Metrolink extension along the SR-126 corridor to Ventura County is part of long-range transit plans prepared by Ventura County.

TRAFFIC PATTERNS

The patterns of travel in Santa Clarita Valley will change over time as population increases and as more employment opportunities develop within the valley. This changing relationship can be seen from the following summary table derived from the SCVCTM showing the internal/external travel patterns today and as projected by buildout. The relationship is shown in the form of tripends, which are the total trips entering and leaving a given location.

AVERAGE DAILY INTERNAL/EXTERNAL TRIPS FOR SCVCTM AREA		
	EXISTING	FUTURE
Internal Tripends	661,410 (73%)	2,289,118 (86%)
External Tripends	249,300 (27%)	374,400 (14%)
TOTAL TRIPENDS	910,710 (100%)	2,663,518 (100%)

As can be seen from this data, the external trips are projected to increase over time (from 249,300 to 374,400), but the proportion of external trips will decrease significantly (from 27 percent to 14 percent). This reflects the growing size and increasing employment and commercial base in the Valley, which decreases the dependence on out-commuting for work and other activities. These travel pattern figures do not include Newhall Ranch, and comparison data with the proposed project is given in the next chapter.

The changing travel patterns in the valley are important in the context of regional transportation facilities such as the freeways and freeway interchanges in the valley. In Chapter 4.0, traffic data is presented for the freeways and freeway interchanges, and the changing external travel patterns shown above are reflected in those forecasts. Increase in demand on those facilities reflects the growth in external trips, which as shown here is less than the growth projections for internal trips.

Chapter 3.0

PROJECT DESCRIPTION

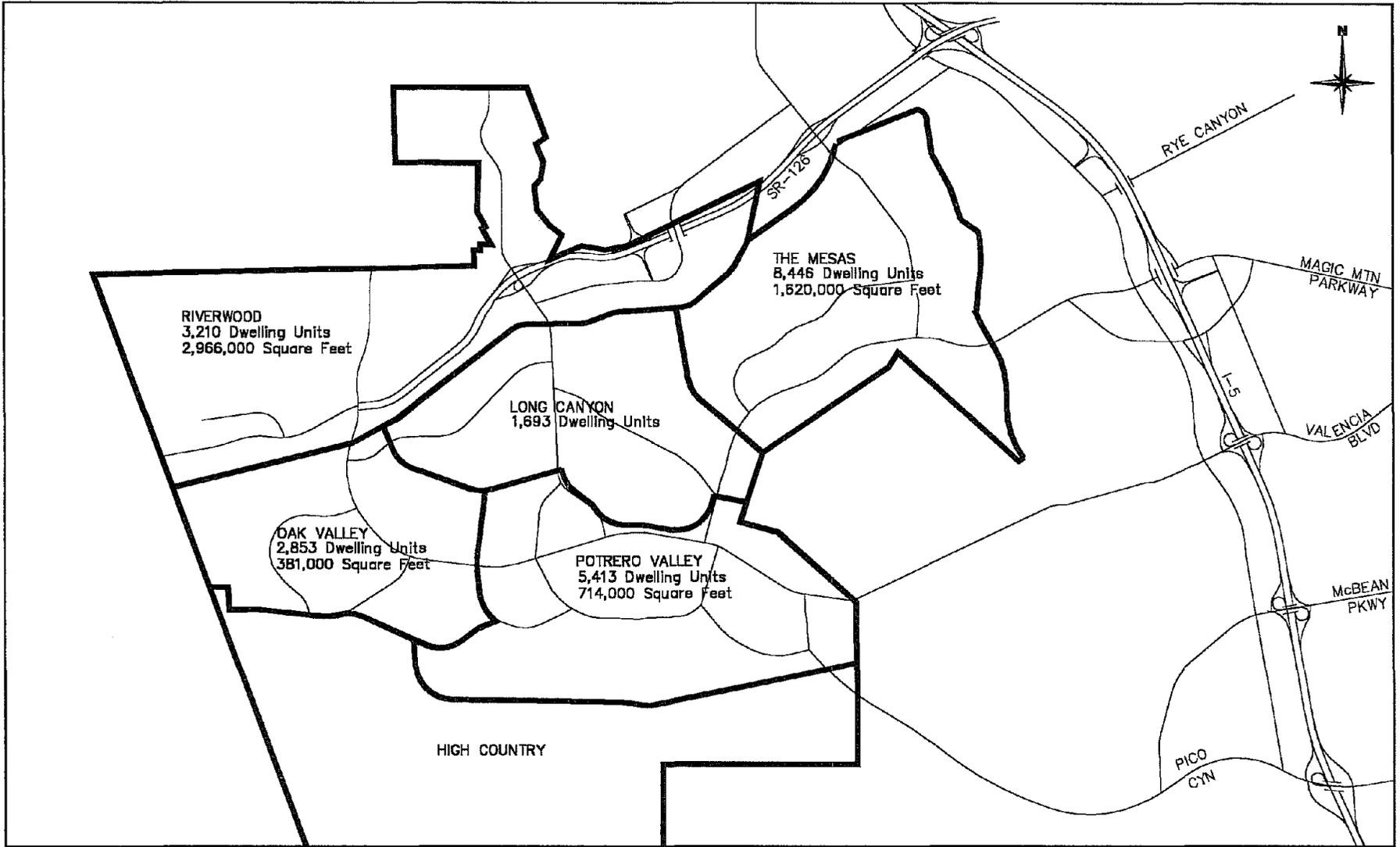
This chapter describes the proposed project in terms of its traffic-related characteristics. This includes project area trip generation and distribution, and the proposed on-site roadway system designed to serve project traffic. Discussion is also given of the project travel patterns in relation to the overall travel patterns in the Santa Clarita Valley.

LAND USE AND TRIP GENERATION

The proposed project has 21,615 dwelling units (DU) and 5,681,000 square feet of retail, office and industrial development. The land use plan also includes schools, parks, and a golf course. Much of the project area located on the south end of the site (called the "high country") will remain as permanent open space.

The community is organized into five villages as illustrated in Figure 3-1. These villages are an integral part of the land use concepts embodied in the Newhall Ranch development plan, providing a basis for the land use distribution and on-site amenities. Land uses in each village create the travel patterns which the circulation system must serve, and hence the allocation shown here was used to establish roadway sizing and access needs for the project. Some features of the land use plan are briefly noted below.

Mixed Use - There are five mixed use Village centers in the Land Use Plan. The mixed use centers will permit a combination of commercial, office, residential, and public service and recreational uses. Depending on their location, the mixed use village centers are intended to serve a larger area than the immediate Village in which they would be located. Access to the mixed use centers will be facilitated by major highways, and by pedestrian trails and bikeways. The locations of



LEGEND
SQUARE FEET REFERS TO THE
NON-RESIDENTIAL LAND USES OF
RETAIL, OFFICE AND INDUSTRIAL
DEVELOPMENT

Figure 3-1
NEWHALL RANCH VILLAGES

these centers were selected to reduce the amount and trip length of automobile trips and maximize use of pedestrian and bicycle trails.

Commercial (Retail/Office) - Community commercial centers would permit uses such as retail, food service, banking, entertainment, and automobile-related uses. The centers would be located near major highways.

Business Park - Business Park uses are proposed in the Riverwood Village at one location north of the intersection of Chiquito Canyon Road and SR-126 and at one other location on the south side of SR-126 west of San Martinez Grande/Potrero Canyon Road near the Los Angeles/Ventura County line. The Business Park would accommodate local and regional employment needs, and would enhance the housing/employment balance. This land use would provide for a full range of businesses, including research and development, light manufacturing, warehouse and distribution facilities, office/showrooms, and other supporting uses.

Visitor-Serving Uses - A 37 gross acre visitor-serving center is proposed to provide a regional cultural, recreational, and commercial amenity, as well as serve the Newhall Ranch community. The center is proposed to serve the High County Special Management Area and is intended to be a low impact lodge-type use which provides controlled access to the High Country.

Accessory Units - Accessory units were assumed for the estate-size single-family residential homes. They comprise either attached or detached living quarters, and are considered part of the estate "unit". Trip generation rates for the estate units reflect the additional trips that would be generated by accessory units.

Trip generation is determined by applying suitable trip generation rates to the amount of land use in each land use type. The results are calculated as "tripends", which are the total trips entering and leaving a given location. Table 3-1 lists the estimated number of average daily tripends generated by the different land use categories in the Newhall Ranch Project. As shown, the overall project generates 334,000 ADT, of which 170,400 (51 percent) is accounted for by residential land use and the remainder by non-residential land uses. Trip generation rates used here are from the SCVCTM, and are described in the SCVCTM model validation report (see Reference 2 at the end of Chapter 1.0).

Table 3-1

NEWHALL RANCH PROJECT
LAND USE AND TRIP GENERATION SUMMARY

<u>LAND USE TYPE</u>	<u>UNITS</u>	<u>ADT</u>
1. Residential - Low	671.00 DU	6,600
2. Residential - Low/Medium	6000.00 DU	59,400
3. Residential - Medium/High	14521.00 DU	100,200
5. Residential - Estate	423.00 DU	4,200
11. Commercial Center (10-30a)	1078.00 TSF	58,300
12. Commercial Center (<10ac)	601.00 TSF	51,100
20. Elementary/Jr.High School	300.00 STA	4,000
21. High School	100.00 STA	1,700
24. Library	25.00 TSF	2,100
31. Business Park	1513.00 TSF	15,400
34. Utilities	100.00 TSF	200
40. Commercial Office	2489.00 TSF	28,800
50. Golf Course	180.00 AC	1,400
51. Developed Park	143.00 AC	400
53. Special Generator (Fire Stations)	200.00 SG	200
TOTAL		334,000

DU - dwelling unit
 TSF - thousand square feet
 STA - staff
 AC - acre
 SG - special generator

TRIP DISTRIBUTION

Future travel patterns in relation to the project are a function of the project land uses described above and the surrounding land uses, particularly centers of employment or commercial activity. This geographic context can be seen from Figure 3-2 which shows the major activity centers surrounding the project. Directly to the northeast across SR-126 is the Valencia Commerce Center, which is estimated to provide 30,500 jobs upon buildout, making the center a major source of employment for Newhall Ranch and other area residents. Also nearby just east of I-5, is the Valencia Industrial Center and the Valencia Corporate Center which together are expected to provide 27,500 jobs. Magic Mountain theme park will provide around 3,360 full time and part time jobs. Other centers in the vicinity of the project include California Institute of the Arts and the Valencia Town Center, the latter providing a major regional shopping center for the Valley.

The geographic distribution of trips to and from the project can be seen in Figure 3-3. This shows the percent of project trips on each major roadway serving the project. As would be expected, there is a high orientation to the Commerce Center area adjacent to the project with nine percent of the trips attracted here (five percent using Franklin and four percent using Commerce Center Drive). East of the freeway, trips disperse into areas such as Valencia Industrial Center and the Town Center area.

An internal/external summary of average daily tripends for the project is as follows:

PROJECT TRIP COMPONENTS	
<u>COMPONENT</u>	<u>PROJECT TRIPENDS</u>
Internal to project	157,000 (47%)
Within Santa Clarita Valley	144,000 (43%)
Outside Santa Clarita Valley	33,000 (10%)
TOTAL	334,000 (100%)

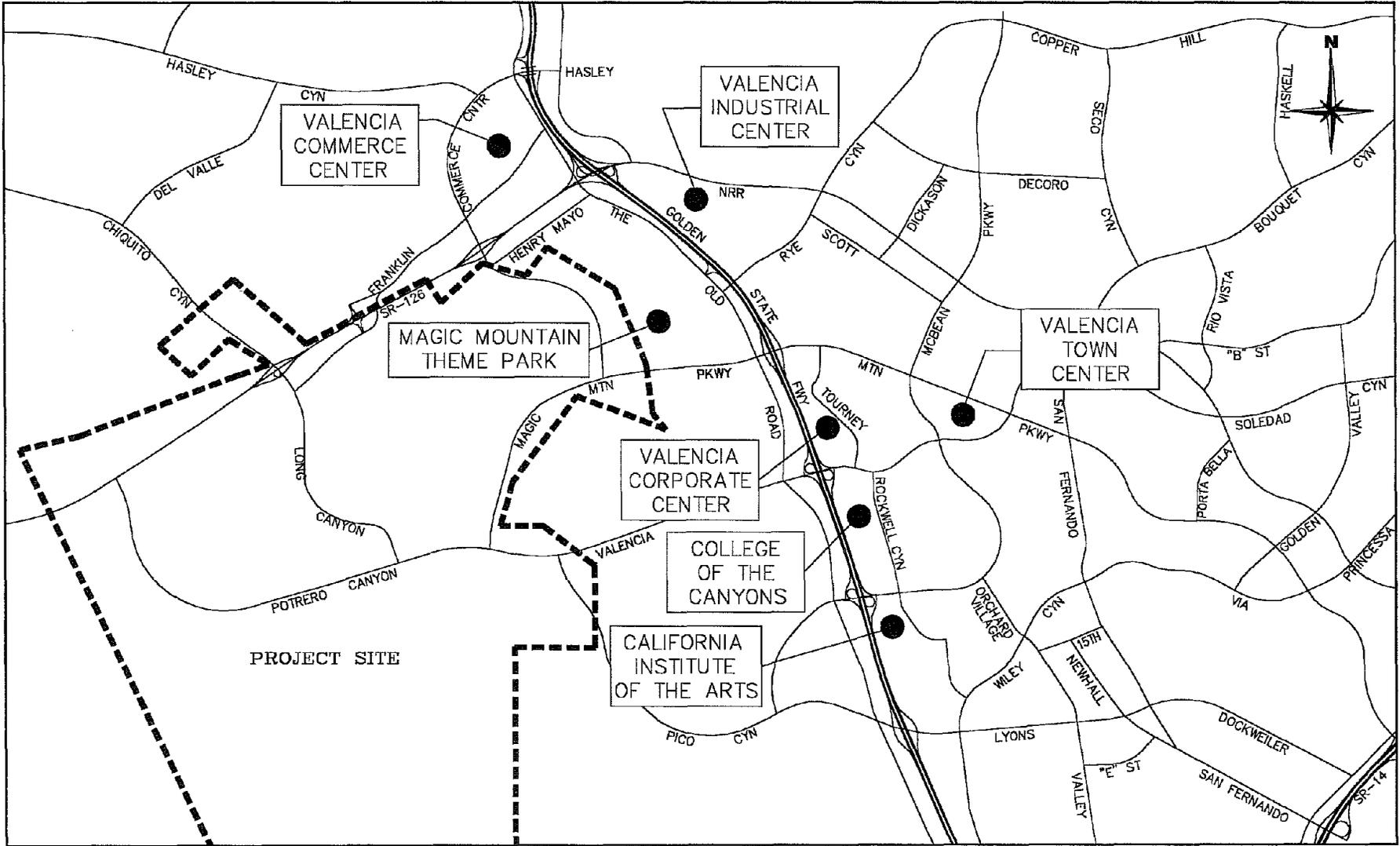


Figure 3-2
ACTIVITY CENTERS SURROUNDING
THE PROJECT SITE

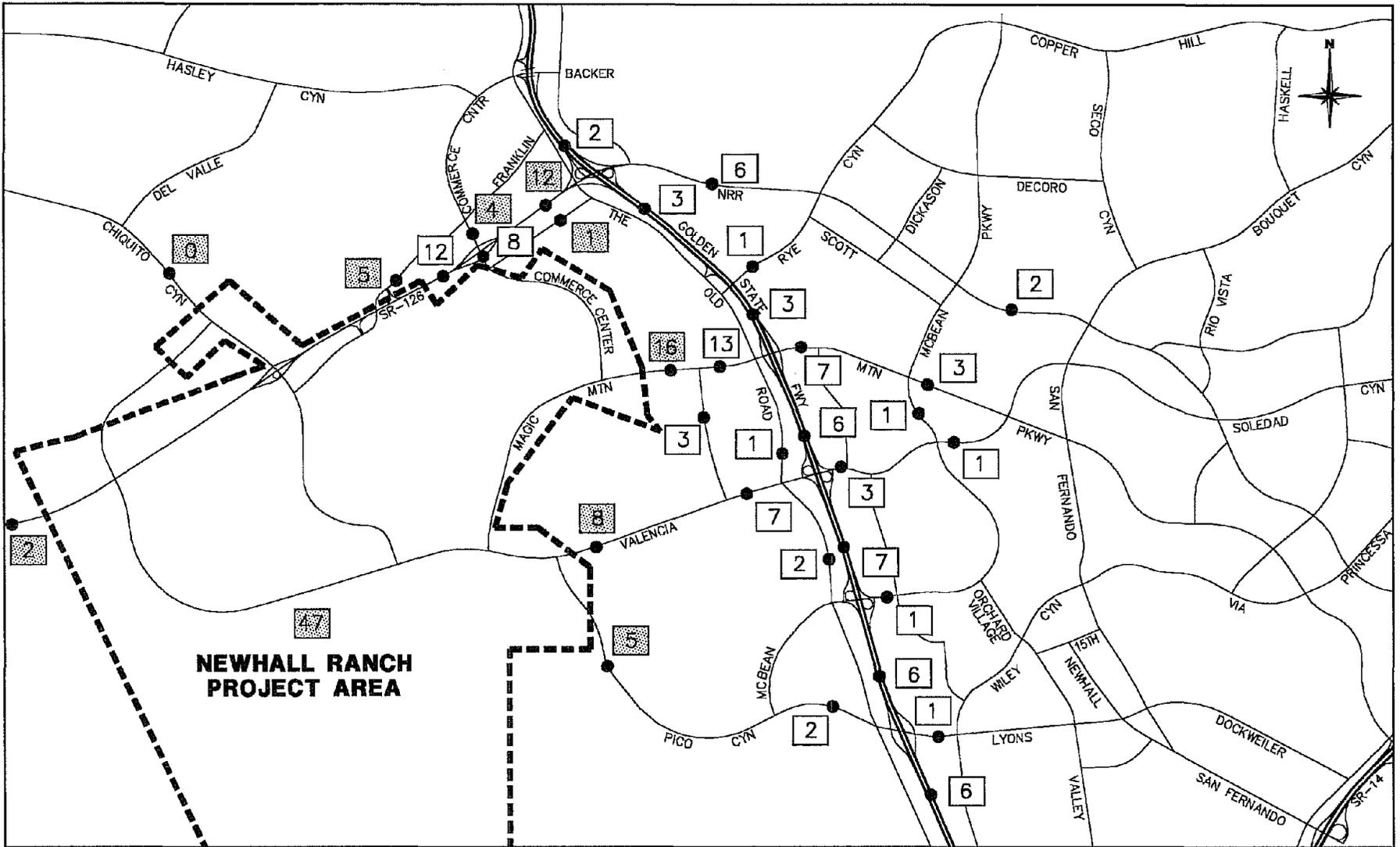


Figure 3-3
PROJECT DISTRIBUTION PATTERNS

As can be seen here, 47 percent of the project tripends (which represents 31 percent of project trips) remain on site. The remainder interacts with land uses in the Valley (43percent), and outside the Valley (10 percent). Trips outside the Valley are accounted for by three major portals, I-5 south (six percent), I-5 north (two percent) and SR-126 (two percent). As noted in Chapter 1.0, the Valley refers to the SCVCTM area.

A comparison of the external trip proportion for the Newhall Ranch project with the corresponding valleywide proportion can be seen by comparing total ADT tripends as follows:

EXTERNAL TRIP COMPARISON			
	TOTAL TRIPENDS	EXTERNAL TRIPS	EXTERNAL PERCENT
Valleywide (no-project)	2,663,518	374,400	14%
Newhall Ranch Project	334,000	33,000	10%

The lower external percentage for the project compared to the valleywide external relationship reflects two major factors; the location of the project further from the Los Angeles/San Fernando Valley employment centers than many of the residential areas in Santa Clarita Valley, and the close proximity of the project to two large future employment centers, the Valencia Commerce Center and the Valencia Industrial Center.

The effect of this proximity of the project to major employment centers can be seen from the average trip distances derived by the SCVCTM for project trips compared to the Southern California Association of Governments (SCAG) regional averages in the Valley:

AVERAGE TRIP DISTANCES (miles)			
	WORK	NON-WORK	ALL TRIPS
Newhall Ranch	10.2 (17.0 km)	6.4 (10.7 km)	7.4 (12.3 km)
Regional Average	11.7 (19.5 km)	6.9 (11.5 km)	8.2 (13.7 km)

Hence, the average trip distances are expected to be around 10 percent shorter than future averages for the Valley.

As Newhall Ranch develops over time, travel patterns in the Santa Clarita Valley will evolve in relation to development in Newhall Ranch and in other parts of the Valley. Residents of Newhall Ranch will make daily trips within their own community (for school, convenience shopping, etc.) and to destinations outside their community. Activity centers such as the Valencia Industrial Center, the Commerce Center, and the Town Center will attract work trips and major shopping trips from Newhall Ranch, additionally some Newhall Ranch trips will be made to areas outside the Santa Clarita Valley.

Because of this interaction between Newhall Ranch and the Valley, future travel patterns will be different than under a no-project scenario. Such differences in travel patterns are reflected in the comparative traffic volume data presented later in this report. Project trips are not merely "overlaid" onto the transportation system, but are modeled by the SCVCTM in a manner which depicts the future interaction between the project and the surrounding area.

ON-SITE CIRCULATION SYSTEM

There are currently no public roadways on the site, apart from SR-126 which passes along the northern edge of Newhall Ranch, Chiquito Canyon Road which extends north from SR-126 into the community of Val Verde and San Martinez Grande Road which also extends north of SR-126. As the project develops, a complete circulation system will be constructed to serve the on-site land uses and provide external access.

This on-site circulation system is illustrated in Figure 3-4. It features three crossings of the Santa Clara River, one at Potrero Canyon, one at Long Canyon, and one at Commerce Center Drive. The combination of Potrero Canyon Road and Magic Mountain Parkway serve as a backbone roadway through the project, allowing for east-west on-site circulation. Long Canyon Road provides a direct connection to SR-126 from the central part of the site.

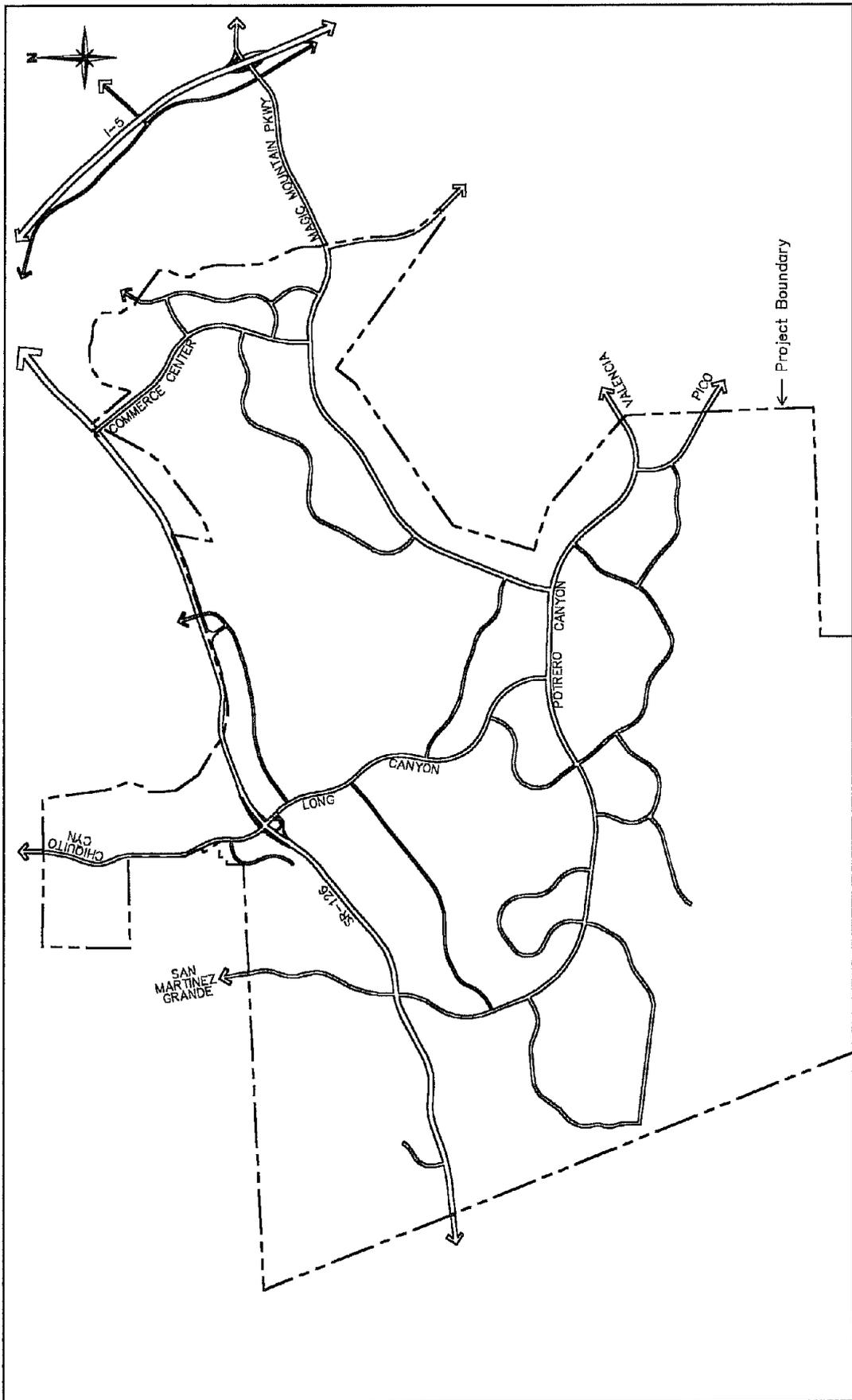


Figure 3-4
 NEWHALL RANCH
 ON-SITE CIRCULATION

A detailed description of the on-site circulation system can be found in Chapter 5.0. The discussion includes descriptions of the type of roadways to be provided, signalization, and specific design treatments needed at certain locations to serve future traffic demands.

Proposed Changes to Master Plan of Highways

As part of the project, several changes are proposed to the planned highway system in the project area (see description of current Master Plan of Highways in Chapter 2.0). These are illustrated in Figure 3-5 and can be summarized as follows:

1. Potrero Canyon Road - This would extend through the Potrero Canyon area of the project, providing a connection between SR-126 at the existing San Martinez Grande intersection to the eastern boundary of the project where it becomes Valencia Boulevard. It would essentially substitute for the northerly section of Pico Canyon Road on the current Arterial Master Plan of Highways.
2. Long Canyon Road - This new arterial would extend from SR-126 at Chiquito Canyon Road and terminate at Potrero Canyon Road.
3. Franklin Avenue Extension - The existing Franklin Avenue in the Commerce Center would extend over SR-126 and along the north bank of the Santa Clara River to connect with Long Canyon Road.
4. Magic Mountain Parkway - This roadway is proposed to extend westward into the project, terminating at Potrero Canyon Road.
5. Commerce Center Drive - Extending southward from the existing roadway north of SR-126, this roadway would terminate as a T-intersection at Magic Mountain Parkway. This connection represents a change from the current arterial highway plan in which Commerce Center Drive south of SR-126 and Magic Mountain Parkway west of I-5 are a single continuous roadway.
6. Chiquito Canyon Road - The designation of this roadway would change from a two-lane limited secondary to a four-lane secondary highway from the project boundary to SR-126.
7. SR-126 - This would be upgraded to an expressway between Commerce Center Drive and San Martinez Grande Canyon Road.

As in the City Circulation Element Network, it is assumed that SR-126 will be upgraded to an expressway through part of the project area. The suggested upgrading for SR-126 is to a six-lane major arterial between the Los Angeles County/Ventura County line and San Martinez Grande and to an expressway from San Martinez Grande to I-5. A detailed discussion on SR-126 can be found in Chapter 5.0.

Chapter 4.0

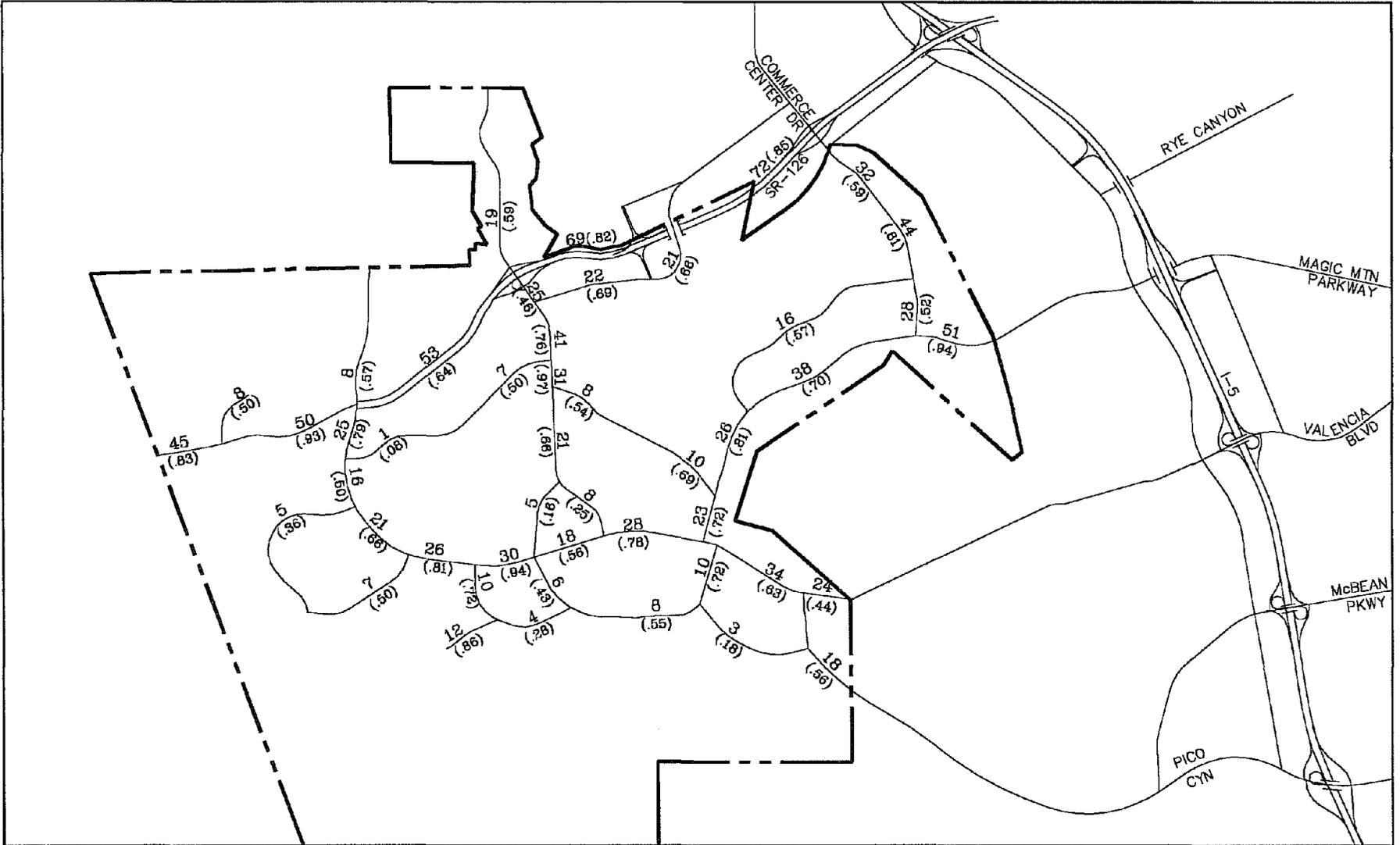
IMPACT ANALYSIS

This chapter describes the impact of the proposed project to the on-site and surrounding circulation system for a buildout time frame. Long-range traffic volumes and resulting level of services are compared for no-project versus with-project conditions and project impacts are identified accordingly. Project impact evaluation as required by the Congestion Management Program (CMP) is also addressed. Information from this analysis is then used to formulate the mitigation measures set out in Chapter 5.0.

ON-SITE CAPACITY ANALYSIS

A capacity verification of the on-site circulation system was made using long-range traffic forecast data from the Newhall Ranch sub-area traffic model (see discussion in Chapter 1.0 and detailed description in Appendix B). The long-range volumes and volume/capacity (V/C) ratios for the project circulation system are illustrated in Figure 4-1. The on-site SR-126 volumes were evaluated using the City Circulation Element Network. Capacities used to derive the V/C ratios are based on the proposed roadway system for the project, and a detailed description of this system is given in the next chapter. As shown, none of the on-site locations exceeds the ADT V/C of 1.00 (the threshold for determining a deficient location). All roadways have sufficient capacity for the estimated traffic demand.

A further verification of the adequacy of the on-site circulation system was made using peak hour intersection capacity utilization (ICU) values. Peak hour turn movement volumes were calculated for the set of intersections shown in Figure 4-2. These represent the major on-site intersections of the backbone roadway system within the project. The results are listed in Table 4-1 and actual ICU calculations can be found in Appendix A. It should be noted that the first seven intersections in this table were modeled using the SCVCTM, since the intersections carry non-project



LEGEND
XX ADT VOLUME (000s)
(.YY) VOLUME/CAPACITY RATIO (V/C)

Figure 4-1
LONG-RANGE ADT VOLUMES (000s)
-PROJECT AREA

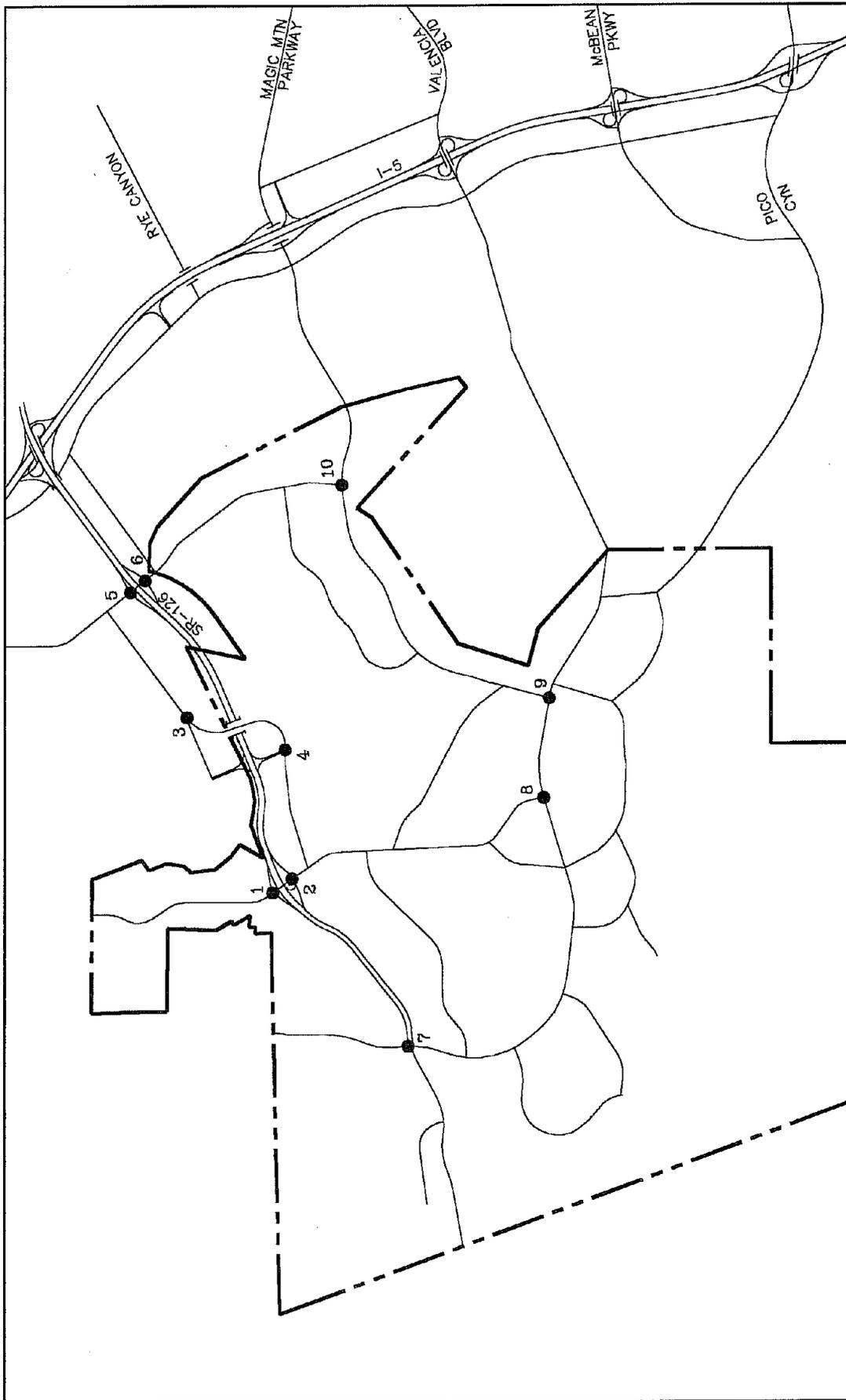


Figure 4-2
 MAJOR INTERSECTION LOCATIONS

Table 4-1

LONG RANGE ICU SUMMARY - ON-SITE INTERSECTIONS

INTERSECTION	CITY CIRCULATION ELEMENT NO PROJ		CITY CIRCULATION ELEMENT WITH PROJ		ALTERNATIVE NETWORK NO PROJ		ALTERNATIVE NETWORK WITH PROJ	
	AM	PM	AM	PM	AM	PM	AM	PM
	1. Chiquito Cyn & SR-126 WB Ramp	--	--	.52	.60	--	--	.53
2. Chiquito Cyn & SR-126 EB Ramp	--	--	.26	.53	--	--	.26	.54
3. Franklin & SR-126 WB Ramp	--	--	.54	.37	--	--	.55	.34
4. Franklin & SR-126 EB Ramp	--	--	.56	.75	--	--	.56	.74
5. Commerce Ctr & SR-126 WB Ramp	.26	.50	.38	.65	.28	.51	.37	.65
6. Commerce Ctr & SR-126 EB Ramp	.38	.50	.53	.54	.40	.48	.52	.55
7. San Martinez Grande & SR-126	.58	.43	.69	.78	.58	.41	.70	.80

INTERNAL TO PROJECT	WITH PROJECT	
	AM	PM
8. Long Canyon & Potrero Cyn	.60	.53
9. Magic Mountain & Potrero	.59	.66
10. Commerce Center & Magic Mtn	.70	.81

Level of service ranges: .00 - .60 A
 .61 - .70 B
 .71 - .80 C
 .81 - .90 D
 .91 - 1.00 E
 Above 1.00 F

* See intersection locations in Figure 4-2

traffic in addition to project traffic. The remaining three are modeled using the Newhall Ranch Traffic Model. As can be seen, most intersections are forecast to have acceptable ICU values which operate at level of service "D" or better.

ARTERIAL HIGHWAY IMPACTS

This section discusses project impacts to the surrounding arterial highway system. Capacity values and level of service designations are first discussed, followed by performance criteria for impact identification. Results from a detailed arterial link analysis are then presented.

Arterial Capacity Values

As discussed in Chapter 1.0, arterial highway impacts were identified by forecasting long-range average daily traffic (ADT) volumes and calculating the corresponding volume/capacity (V/C) ratios. The ADT capacity values used for this analysis are as follows:

ADT CAPACITY VALUES	
<u>FACILITY TYPE</u>	<u>ADT CAPACITY</u>
Eight-lane Freeway (1-5)	180,000
Eight-lane Expressway	112,000
Six-lane Expressway	84,000
Augmented Major Highway (8-lanes)	86,000
Major Highway (8-lanes)	72,000
Augmented Major Highway (6-lanes)	65,000
Major Highway (6-lanes)	54,000
Major Highway (4-lanes)	32,000
Major Highway (2-lanes)	16,000
Secondary Highway (4-lanes)	32,000
Secondary Highway (2-lanes)	16,000

These capacities, with the exception of the Augmented Major Highway classification, are used by the County of Los Angeles for ADT capacity evaluation, and indicate the maximum volume to be carried by each roadway type. The Augmented Major Highway classification is a special capacity designation developed by the City of Santa Clarita and is primarily applied to sections of roadway which are in the City or adjacent to the City. A detailed discussion on augmented capacity is given

in Chapter 5.0. As described there, augmented capacity involves a variety of capacity enhancement strategies which increase the amount of traffic that can be carried by a standard Major Highway.

Performance Criteria

In transportation planning work, it is common to translate V/C ratios into level of service (LOS) designations. These are labeled "A" through "F", with "A" indicating free flow conditions (i.e., minimal traffic) and "F" indicating congested conditions. LOS "D" changes to LOS "E" when the V/C increases beyond .90, and LOS "F" occurs when the V/C exceeds 1.0.

Various operating LOS policy standards have been established which serve as a guideline for evaluating observed traffic conditions and as a target when evaluating future traffic conditions. At the regional planning level, the state-wide Congestion Management Plan (CMP) specifies LOS "E" (V/C less than or equal to 1.00) as the operating standard for roadways on the CMP highway system. Although the CMP program is typically applied to determine short-range project impacts, the LOS methodology is also appropriate to apply to long-range analyses.

For the purpose of this ADT arterial link analysis, a V/C of 1.0 is the maximum acceptable value. In long-range planning, a V/C of 1.0 is generally considered to be applicable as a threshold value when using ADT volumes. The lead agency, in this case the County of Los Angeles, has determined that this criteria is appropriate for a study of this type and scope, and uses this threshold for long-range planning studies within the County's jurisdiction. The 1.0 for ADT link analyses recognizes the more generalized nature of ADT link volumes (compared to intersection volumes, for example). Also, the ADT V/C values will typically translate to something less when discounts are made for future changes in travel behavior, particularly during peak hours. Various regulatory actions and other influences are expected to change travel behavior over time and increase the efficiency with which the transportation system is utilized.

To evaluate project impacts on the arterial highway system, three types of impacts are identified. They are given the following designations in the tabular data presented in this chapter.

- P This refers to a location which has a V/C of less than or equal to 1.00 without the project and greater than 1.00 with the project. Hence, it can be considered a significant adverse impact of the project where mitigation is necessary.
- PA Several arterials have special capacity augmentation, this capacity augmentation being needed for either no-project volumes or both no-project and project volumes. Where the project contributes traffic to such a location, then the amount of capacity augmentation that will be needed is increased. The project, hence, causes a potential impact at such locations, and is therefore identified here as a project impact of which the project has a share of the total impact.
- PL This refers to a location where the addition of project trips results in the need for more lanes than would otherwise be required. However, the required number of lanes is still within that which is specified in the Circulation Element Network.

In all cases, a project contribution of one percent or more is considered to be a measurable impact and is used as the impact criteria. Hence, V/C's for those locations where the project measurably contributes to the total volume are examined, and if any of the above impact types are found, then the location is identified as being impacted by the project.

In Chapter 2.0, the two long-range highway plans used for this analysis were described. The following summarizes the with and without-project volumes and the corresponding project impacts for each roadway network alternative.

City Circulation Element Network

The no-project ADT volumes for the City Circulation Element arterial system are shown in Figure 4-3, and the corresponding with-project volumes are illustrated in Figure 4-4.

Comparison between the two sets of forecasts shows that the greatest volume differences occur on the east-west arterials directly serving the project. Valencia Boulevard just west of I-5 is forecast to carry 57,000 ADT with the project compared to 40,000 without the project, and Magic Mountain Parkway just west of The Old Road has a forecast volume of 81,000 ADT with the project compared to 65,000 without the project. Pico Canyon Road just west of The Old Road is forecast to carry 28,000 ADT with the project compared to 22,000 ADT without the project. On SR-126 west of I-5, the with-project volume is 90,000 compared to 62,000 without the project.

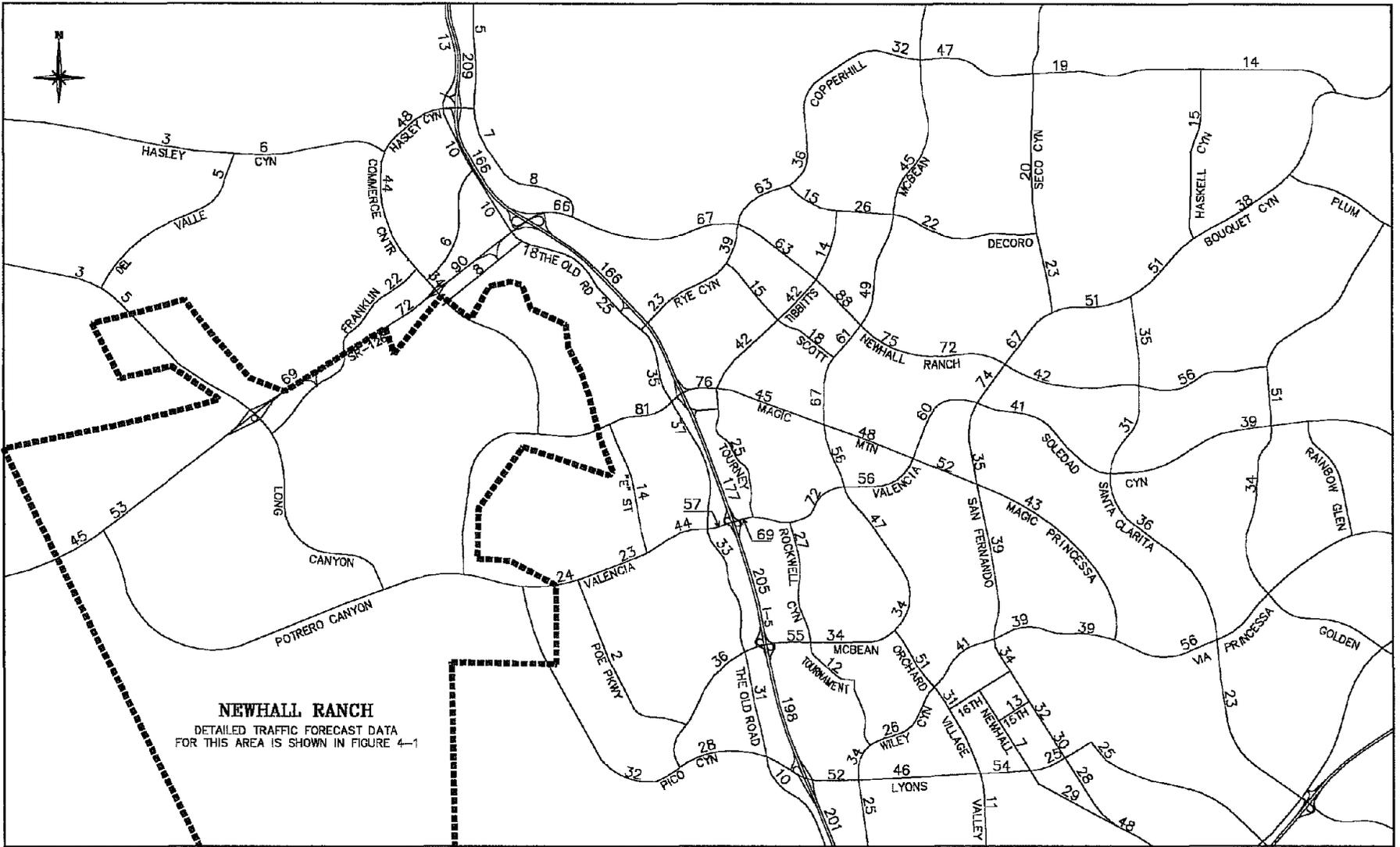


Figure 4-4
LONG-RANGE ADT VOLUMES (000s)
CITY CIRCULATION ELEMENT NETWORK
(WITH PROJECT)

East of I-5, the project results in higher volumes on major arterials such as Newhall Ranch Road, Magic Mountain Parkway, and Valencia Boulevard. The difference between with and without project becomes generally insignificant east of San Fernando Road and Bouquet Canyon Road. Land uses in that area to the east are assumed to be the same with or without the project and hence the total trips generated by that area are unchanged. Trips generated in that area are on the roadway system regardless of the project, resulting in minimal differences between with and without project volumes.

A listing of the volumes and V/C ratios for the study area circulation system can be found in Table 4-2. (The link numbering system used in this table corresponds to an overall link numbering system for the SCVCTM, and a reference figure can be found in Appendix C.) Summarized here are the volumes and capacities and the resulting V/C ratios for the study area arterial highway system. The project contribution to the V/C is listed, and the "P", "PA", and "PL" notations are used to indicate where a project impact occurs. As noted earlier, a "P" notation is where the project causes a roadway with V/C below 1.00 under no-project conditions to have a V/C higher than 1.00. An "PA" notation is used to indicate augmented capacity where the addition of the project causes an impact of one percent or more and adds to the need for the augmented capacity. A "PL" notation is used where the addition of project trips results in the need for more lanes than would otherwise be required but is still within the number of lanes shown in the Circulation Element Network.

As can be seen from these results, several link locations are impacted by the project. These are summarized in the overall impact summary given at the end of this chapter, and mitigation measures are described in Chapter 5.0.

No Avenue Tibbitts Bridge Alternative Network

As discussed in Chapter 2.0, the Alternative Network represents a modification to the City Circulation Element Network. The primary purpose of this alternative is to show how the project would impact the arterial highway system without the Avenue Tibbitts Bridge as depicted in the City Circulation Element Network.

Table 4-2

LONG-RANGE ADT VOLUME SUMMARY - CITY CIRCULATION ELEMENT NETWORK

LINK #/LOCATION*	LANES	CAPACITY	NO-PROJECT		WITH-PROJECT		PROJ. CONTR.
			VOL	V/C	VOL	V/C	
1. Hasley Cyn w/o Del Valle	2	16,000	3,000	.19	3,000	.19	.00
2. Hasley Cyn e/o Del Valle	4	32,000	5,000	.16	6,000	.19	.03
3. Del Valle n/o Chiquito Cyn	2	16,000	3,000	.19	5,000	.31	.12
4. Chiquito Cyn w/o Del Valle	6	54,000	3,000	.06	3,000	.06	.00
5. Chiquito Cyn e/o Del Valle	6	54,000	2,000	.04	5,000	.09	.05
9. Hasley Cyn e/o I-5	6	54,000	5,000	.09	8,000	.15	.06
10. Hasley Cyn w/o I-5	6	54,000	45,000	.83	48,000	.89	.06
11. Commerce Ctr Dr s/o Hasley	6	54,000	40,000	.74	44,000	.81	.07
12. Commerce Ctr Dr n/o SR-126	6	54,000	30,000	.56	34,000	.63	.07 PL
15. Valencia e/o Pico Cyn	6	54,000	5,000	.09	24,000	.44	.35 PL
17. Valencia e/o Poe	6	54,000	5,000	.09	23,000	.43	.34 PL
18. Valencia w/o The Old Rd	6	54,000	19,000	.35	44,000	.81	.46 PL
19. Valencia e/o The Old Rd	6A	65,000	40,000	.62	57,000	.88	.26 PA
22. Magic Mtn w/o The Old Rd	6A	65,000	65,000	1.00	81,000	1.25	.25 P
23. The Old Rd n/o Commerce Ctr	6	54,000	13,000	.24	13,000	.24	.00
24. The Old Rd n/o Franklin	6	54,000	14,000	.26	10,000	.19	-.07
25. The Old Rd n/o SR-126	6	54,000	11,000	.20	10,000	.19	-.01
26. The Old Rd s/o SR-126	6	54,000	14,000	.26	18,000	.33	.07
27. The Old Rd s/o Henry Mayo	6	54,000	23,000	.43	25,000	.46	.03
28. The Old Rd n/o Magic Mtn	6	54,000	30,000	.56	35,000	.65	.09 PL
29. The Old Rd s/o Magic Mtn	6	54,000	34,000	.63	37,000	.69	.06
30. The Old Rd s/o Valencia	6	54,000	28,000	.52	33,000	.61	.09 PL
31. The Old Rd s/o McBean	6	54,000	27,000	.50	31,000	.57	.07
32. The Old Rd s/o Lyons	4	32,000	10,000	.31	10,000	.31	.00
33. Pico w/o McBean	4	32,000	23,000	.72	32,000	1.00	.28
34. Pico e/o McBean	4	32,000	22,000	.69	28,000	.88	.19
35. McBean w/o The Old Rd	6	54,000	36,000	.67	36,000	.67	.00
36. McBean e/o I-5	6A	65,000	52,000	.80	55,000	.85	.05 PA
37. McBean e/o Tournament	6	54,000	33,000	.61	34,000	.63	.02
38. McBean s/o Valencia	6	54,000	46,000	.85	47,000	.87	.02
39. McBean n/o Valencia	8	72,000	55,000	.76	56,000	.78	.02
40. McBean n/o Magic Mtn	8	72,000	65,000	.90	67,000	.93	.03
41. McBean s/o Newhall Ranch Rd	8	72,000	59,000	.82	61,000	.85	.03
42. McBean n/o Newhall Ranch Rd	6	54,000	50,000	.93	49,000	.91	-.02
43. McBean n/o Decoro	6	54,000	46,000	.85	45,000	.83	-.02
50. Newhall Ranch Rd e/o I-5	8	72,000	47,000	.65	66,000	.92	.27 PL
51. Newhall Ranch Rd w/o Rye	8	72,000	50,000	.69	67,000	.93	.24 PL
52. Newhall Ranch Rd e/o Rye	8	72,000	54,000	.75	63,000	.88	.13 PL
53. Newhall Ranch e/o Dickason	8A	86,000	80,000	.93	88,000	1.02	.09 P
54. Newhall Ranch Rd e/o McBean	8A	86,000	72,000	.84	75,000	.87	.03 PA
55. Newhall Ranch e/o Bouquet	6	54,000	42,000	.78	42,000	.78	.00
56. Castaic n/o Newhall Ranch Rd	4	32,000	10,000	.31	8,000	.25	-.06
57. Castaic s/o Commerce Ctr Dr	4	32,000	4,000	.13	7,000	.22	.09
58. Castaic n/o Commerce Ctr Dr	4	32,000	5,000	.16	5,000	.16	.00
60. Franklin w/o Commerce Ctr	4	32,000	9,000	.28	22,000	.69	.41
61. Franklin e/o Commerce Ctr	4	32,000	5,000	.16	6,000	.19	.03
63. Rye e/o I-5	6	54,000	22,000	.41	23,000	.43	.02
64. Rye e/o Scott	6	54,000	39,000	.72	39,000	.72	.00
65. Copper Hill e/o Newhall Ranch	6A	65,000	59,000	.91	63,000	.97	.06 PA
66. Copper Hill n/o Decoro	6	54,000	34,000	.63	36,000	.67	.04
67. Copper Hill e/o McBean	6	54,000	46,000	.85	47,000	.87	.02
68. Copper Hill e/o Seco	4	32,000	19,000	.59	19,000	.59	.00
69. Copper Hill e/o Haskell	4	32,000	14,000	.44	14,000	.44	.00

(Continued)

Table 4-2 (cont)

LONG-RANGE ADT VOLUME SUMMARY - CITY CIRCULATION ELEMENT NETWORK

LINK #/LOCATION*	LANES	CAPACITY	NO-PROJECT		WITH-PROJECT		PROJ. CONTR.
			VOL	V/C	VOL	V/C	
70. Decoro e/o Copper Hill	4	32,000	14,000	.44	15,000	.47	.03
71. Decoro e/o Dickason	4	32,000	25,000	.78	26,000	.81	.03
72. Decoro e/o McBean	4	32,000	21,000	.66	22,000	.69	.03
73. Haskell n/o Bouquet	4	32,000	14,000	.44	15,000	.47	.03
74. Seco n/o Decoro	4	32,000	20,000	.63	20,000	.63	.00
75. Seco s/o Decoro	4	32,000	23,000	.72	23,000	.72	.00
76. Bouquet e/o Haskell	6	54,000	37,000	.69	38,000	.70	.01
77. Bouquet e/o Rio Vista	6	54,000	50,000	.93	51,000	.94	.01
78. Bouquet n/o Newhall Ranch	8	72,000	66,000	.92	67,000	.93	.01
79. Bouquet s/o Newhall Ranch	8A	86,000	73,000	.85	74,000	.86	.01 PA
80. Bouquet n/o Magic Mtn	6	54,000	35,000	.65	35,000	.65	.00
81. San Fernando s/o Magic Mtn	6	54,000	38,000	.70	39,000	.72	.02
82. San Fernando s/o Wiley	6	54,000	34,000	.63	34,000	.63	.00
83. San Fernando n/o Placerita	6	54,000	32,000	.59	32,000	.59	.00
84. San Fernando s/o Placerita	6	54,000	30,000	.56	30,000	.56	.00
85. San Fernando s/o Lyons	6	54,000	27,000	.50	28,000	.52	.02
86. Ave Scott e/o Rye	6	54,000	15,000	.28	15,000	.28	.00
87. Ave Scott e/o Dickason	6	54,000	17,000	.31	18,000	.33	.02
88. Magic Mtn e/o I-5	8A	86,000	71,000	.83	76,000	.88	.05 PA
89. Magic Mtn e/o Tourney	8	72,000	41,000	.57	45,000	.63	.06
90. Magic Mtn e/o McBean	8	72,000	45,000	.63	48,000	.67	.04
91. Magic Mtn e/o Valencia	8	72,000	51,000	.71	52,000	.72	.01
92. Magic mtn e/o San Fernando	6	54,000	43,000	.80	43,000	.80	.00
93. Tourney n/o Valencia	6	54,000	23,000	.43	25,000	.46	.03
94. Rockwell s/o Valencia	4	32,000	26,000	.81	27,000	.84	.03
95. Tournament s/o McBean	4	32,000	12,000	.38	12,000	.38	.00
96. Valencia e/o I-5	8	72,000	59,000	.82	69,000	.96	.14
98. Valencia e/o Rockwell	8	72,000	67,000	.93	72,000	1.00	.07
99. Valencia e/o McBean	6A	65,000	53,000	.82	56,000	.86	.04 PA
100. Valencia n/o Magic Mtn	6A	65,000	59,000	.91	60,000	.92	.01 PA
101. Soledad e/o Bouquet	6	54,000	39,000	.72	41,000	.76	.04
102. Wiley s/o Lyons	4	32,000	22,000	.69	25,000	.78	.09
103. Wiley n/o Lyons	6	54,000	33,000	.61	34,000	.63	.02
104. Wiley e/o Tournament	6	54,000	25,000	.46	26,000	.48	.02
105. Wiley e/o Orchard Village	6	54,000	41,000	.76	41,000	.76	.00
106. Via Princessa e/o San Ferna	6	54,000	40,000	.74	39,000	.72	-.02
107. Via Princessa e/o Magic Mtn	6	54,000	56,000	1.04	56,000	1.04	.00
108. 15th St e/o Orchard Village	4	32,000	12,000	.38	13,000	.41	.03
109. Newhall n/o Lyons	4	32,000	6,000	.19	7,000	.22	.03
110. Newhall s/o Lyons	4	32,000	28,000	.88	29,000	.91	.03
111. San Fernando e/o Newhall	6	54,000	47,000	.87	48,000	.89	.02
112. Orchard Village s/o McBean	6	54,000	47,000	.87	51,000	.94	.07
113. Orchard Village s/o Wiley	6	54,000	30,000	.56	31,000	.57	.01
114. Orchard Village s/o Lyons	4	32,000	11,000	.34	11,000	.34	.00
115. Lyons e/o I-5	6	54,000	50,000	.93	52,000	.96	.03
116. Lyons e/o Wiley	6	54,000	45,000	.83	46,000	.85	.02
117. Lyons e/o Orchard Village	6	54,000	53,000	.98	54,000	1.00	.02
118. Lyons w/o San Fernando	6	54,000	23,000	.43	25,000	.46	.03
119. McBean e/o Orchard Village	6	54,000	34,000	.63	34,000	.63	.00
122. Dockweiler e/o San Fernando	6	54,000	24,000	.44	25,000	.46	.02
123. Tibbitts s/o Newhall Ranch	6	54,000	41,000	.76	42,000	.78	.02
124. Dickason s/o Decoro	4	32,000	15,000	.47	14,000	.44	-.03

(Continued)

Table 4-2 (cont)

LONG-RANGE ADT VOLUME SUMMARY - CITY CIRCULATION ELEMENT NETWORK

LINK #/LOCATION*	LANES	CAPACITY	NO-PROJECT		WITH-PROJECT		PROJ. CONTR.
			VOL	V/C	VOL	V/C	
126. Bouquet e/o Seco	6	54,000	51,000	.94	51,000	.94	.00
128. Newhall Ranch w/o Bouquet	8	72,000	70,000	.97	72,000	1.00	.03
130. Newhall Ranch e/o Santa Clr	6A	65,000	54,000	.83	56,000	.86	.03 ^{PA}
143. Soledad w/o Golden Valley	6	54,000	39,000	.72	39,000	.72	.00
151. Via Princessa w/o MMP	6	54,000	40,000	.74	39,000	.72	-.02
164. Santa Clarita n/o NRR	6	54,000	34,000	.63	35,000	.65	.02
171. Santa Clarita n/o Soledad	6	54,000	31,000	.57	31,000	.57	.00
172. Santa Clarita s/o Soledad	6	54,000	35,000	.65	36,000	.67	.02
176. Santa Clarita s/o Via Prncs	6	54,000	22,000	.41	23,000	.43	.02
194. Copperhill w/o McBean	6	54,000	31,000	.57	32,000	.59	.02
240. Tibbitts s/o Scott	6	54,000	40,000	.74	42,000	.78	.04
250. "E" s/o Magic Mountain	4	32,000	3,000	.09	14,000	.44	.35
251. Poe s/o Valencia	4	32,000	1,000	.03	2,000	.06	.03

^P Project causes V/C to exceed 1.00

^{PA} Project causes or adds to the need for augmentation

^{PL} Project requires additional lanes compared to No-Project conditions

See Table 2-1 for existing lanes and capacities

XA - X number of lanes, augmented

* A reference map for the link numbering system can be found in Appendix C

Level of service ranges: .00 - .60 A
 .61 - .70 B
 .71 - .80 C
 .81 - .90 D
 .91 - 1.00 E
 Above 1.00 F

The no-project and with project ADT volumes for the Alternative Network are illustrated in Figures 4-5 and 4-6, respectively. As with the City Circulation Element Network, the east-west roadways directly serving the project show the greatest differences. Valencia Boulevard west of I-5 has a forecast volume of 53,000 compared to 35,000 for the no-project, Magic Mountain Parkway has 80,000 compared to 64,000, Pico carries 28,000 compared to 22,000, and on SR-126 west of I-5, the with-project volume is 89,000 compared to 62,000. Again, the east-west roadways east of the I-5 Freeway show increases near the freeway, diminishing to relatively low differences east of San Fernando Road and Bouquet Canyon Road.

Table 4-3 lists the ADT link volumes and V/C ratios for this scenario. The same “P,” “PA” and “PL” notations are used here to denote where the project contributes to a deficiency or causes a deficiency, respectively.

As can be seen from these results, a number of locations have project impacts. These are summarized at the end of this chapter, and mitigation measures are discussed in the next chapter.

STATE HIGHWAYS

The project impacts two State Highways; SR-126 and I-5. Some minor differences in volumes also occur on SR-14, but only on the section just north of the I-5 confluence does the project increase volumes by more than one percent. Impacts to the State Highway system were evaluated using a similar ADT V/C calculation to that used for the arterial system. All freeway locations within the study area were evaluated, as well as the freeway monitoring stations designated for evaluation under the Congestion Management Program (CMP). A special discussion on SR-126 at the Ventura County line is given later in this section.



Figure 4-5
LONG-RANGE ADT VOLUMES (000s)
NO TIBBITTS BRIDGE ALTERNATIVE
NETWORK (NO PROJECT)

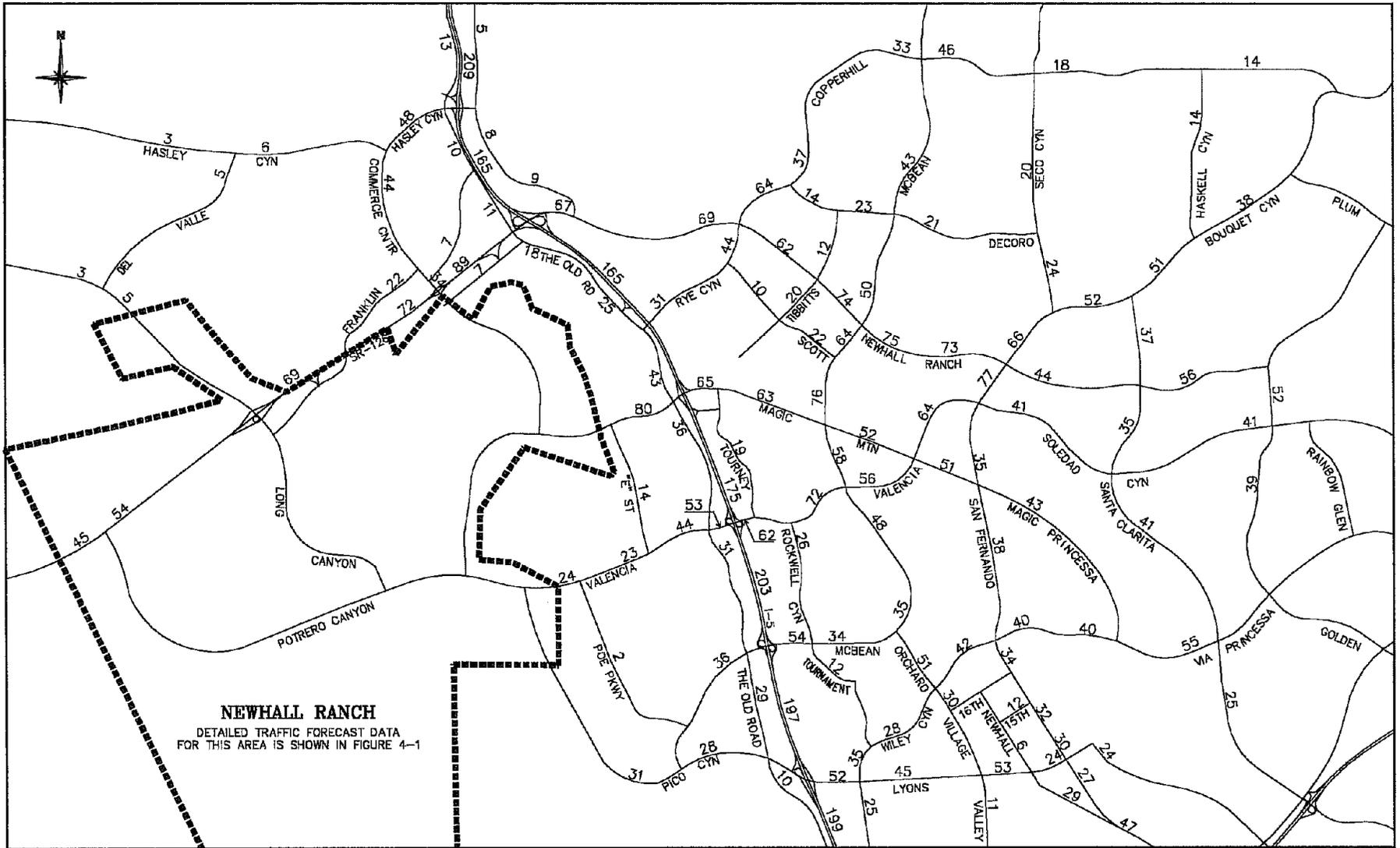


Figure 4-6
LONG-RANGE ADT VOLUMES (000s)
NO TIBBITTS BRIDGE ALTERNATIVE
NETWORK (WITH PROJECT)

Table 4-3

LONG-RANGE ADT VOLUME SUMMARY - NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK

LOCATION*	LANES	CAPACITY	NO-PROJECT		WITH-PROJECT		PROJ. CONTR.
			VOL	V/C	VOL	V/C	
1. Hasley Cyn w/o Del Valle	2	16,000	3,000	.19	3,000	.19	.00
2. Hasley Cyn e/o Del Valle	4	32,000	5,000	.16	6,000	.19	.03
3. Del Valle n/o Chiquito Cyn	2	16,000	3,000	.19	5,000	.31	.12
4. Chiquito Cyn w/o Del Valle	6	54,000	3,000	.06	3,000	.06	.00
5. Chiquito Cyn e/o Del Valle	6	54,000	2,000	.04	5,000	.09	.05
9. Hasley Cyn e/o I-5	6	54,000	5,000	.09	8,000	.15	.06
10. Hasley Cyn w/o I-5	6	54,000	46,000	.85	48,000	.89	.04
11. Commerce Cnt Dr s/o Hasley	6	54,000	41,000	.76	44,000	.81	.05
12. Commerce Cnt Dr n/o SR-126	6	54,000	30,000	.56	34,000	.63	.07 PL
15. Valencia e/o Pico Cyn	6	54,000	5,000	.09	24,000	.44	.35 PL
17. Valencia e/o Poe	6	54,000	5,000	.09	23,000	.43	.34 PL
18. Valencia w/o The Old Rd	6	54,000	19,000	.35	44,000	.81	.46 PL
19. Valencia e/o The Old Rd	6	54,000	35,000	.65	53,000	.98	.33
22. Magic Mtn w/o The Old Rd	6A	65,000	64,000	.98	80,000	1.23	.25 P
23. The Old Rd n/o Commerce Cnt	6	54,000	13,000	.24	13,000	.24	.00
24. The Old Rd n/o Franklin	6	54,000	15,000	.28	10,000	.19	-.09
25. The Old Rd n/o SR-126	6	54,000	10,000	.19	11,000	.20	.01
26. The Old Rd s/o SR-126	6	54,000	13,000	.24	18,000	.33	.09
27. The Old Rd s/o Henry Mayo	6	54,000	23,000	.43	25,000	.46	.03
28. The Old Rd n/o Magic Mtn	6	54,000	40,000	.74	43,000	.80	.06
29. The Old Rd s/o Magic Mtn	6	54,000	30,000	.56	36,000	.67	.11 PL
30. The Old Rd s/o Valencia	6	54,000	26,000	.48	31,000	.57	.09
31. The Old Rd s/o McBean	6	54,000	26,000	.48	29,000	.54	.06
32. The Old Rd s/o Lyons	4	32,000	10,000	.31	10,000	.31	.00
33. Pico w/o McBean	4	32,000	23,000	.72	31,000	.97	.25
34. Pico e/o McBean	4	32,000	22,000	.69	28,000	.88	.19
35. McBean w/o The Old Rd	6	54,000	36,000	.67	36,000	.67	.00
36. McBean e/o I-5	6	54,000	50,000	.93	54,000	1.00	.07
37. McBean e/o Tournament	6	54,000	33,000	.61	34,000	.63	.02
38. McBean s/o Valencia	6	54,000	48,000	.89	48,000	.89	.00
39. McBean n/o Valencia	8	72,000	57,000	.79	58,000	.81	.02
40. McBean n/o Magic Mtn	8A	86,000	75,000	.87	76,000	.88	.01 PA
41. McBean s/o Newhall Ranch Rd	8	72,000	64,000	.89	64,000	.89	.00
42. McBean n/o Newhall Ranch Rd	6	54,000	49,000	.91	50,000	.93	.02
43. McBean n/o Decoro	6	54,000	44,000	.81	43,000	.80	-.01
50. Newhall Ranch Rd e/o I-5	8	72,000	51,000	.71	67,000	.93	.22 PL
51. Newhall Ranch Rd w/o Rye	8	72,000	54,000	.75	69,000	.96	.21 PL
52. Newhall Ranch Rd e/o Rye	8	72,000	55,000	.76	62,000	.86	.10
53. Newhall Ranch e/o Dickason	8A	86,000	70,000	.81	74,000	.86	.05 PA
54. Newhall Ranch Rd e/o McBean	8A	86,000	71,000	.83	75,000	.87	.04 PA
55. Newhall Ranch e/o Bouquet	6	54,000	43,000	.80	44,000	.81	.02
56. Castaic n/o Newhall Ranch Rd	4	32,000	10,000	.31	9,000	.28	-.03
57. Castaic s/o Commerce Cnt Dr	4	32,000	4,000	.13	8,000	.25	.12
58. Castaic n/o Commerce Cnt Dr	4	32,000	5,000	.16	5,000	.16	.00
60. Franklin w/o Commerce Cnt	4	32,000	9,000	.28	22,000	.69	.41
61. Franklin e/o Commerce Cnt	4	32,000	5,000	.16	7,000	.22	.06
63. Rye e/o I-5	6	54,000	30,000	.56	31,000	.57	.01
64. Rye e/o Scott	6	54,000	44,000	.81	44,000	.81	.00
65. Copperhill e/o Newhall Ranch	6A	65,000	61,000	.94	64,000	.98	.04 PA
66. Copperhill n/o Decoro	6	54,000	36,000	.67	37,000	.69	.02
67. Copperhill e/o McBean	6	54,000	46,000	.85	46,000	.85	.00

(Continued)

Table 4-3 (cont)

LONG-RANGE ADT VOLUME SUMMARY - NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK

LOCATION*	LANES	CAPACITY	NO-PROJECT		WITH-PROJECT		PROJ. CONTR.
			VOL	V/C	VOL	V/C	
68. Copperhill e/o Seco	4	32,000	18,000	.56	18,000	.56	.00
69. Copperhill e/o Haskell	4	32,000	14,000	.44	14,000	.44	.00
70. Decoro e/o Copperhill	4	32,000	14,000	.44	14,000	.44	.00
71. Decoro e/o Dickason	4	32,000	23,000	.72	23,000	.72	.00
72. Decoro e/o McBean	4	32,000	21,000	.66	21,000	.66	.00
73. Haskell n/o Bouquet	4	32,000	15,000	.47	14,000	.44	-.03
74. Seco n/o Decoro	4	32,000	20,000	.63	20,000	.63	.00
75. Seco s/o Decoro	4	32,000	23,000	.72	24,000	.75	.03
76. Bouquet e/o Haskell	6	54,000	37,000	.69	38,000	.70	.01
77. Bouquet e/o Rio Vista	6	54,000	51,000	.94	51,000	.94	.00
78. Bouquet n/o Newhall Ranch	8	72,000	66,000	.92	66,000	.92	.00
79. Bouquet s/o Newhall Ranch	8A	86,000	77,000	.90	77,000	.90	.00
80. Bouquet n/o Magic Mtn	6	54,000	35,000	.65	35,000	.65	.00
81. San Fernando s/o Magic Mtn	6	54,000	39,000	.72	38,000	.70	-.02
82. San Fernando s/o Wiley	6	54,000	34,000	.63	34,000	.63	.00
83. San Fernando n/o Placerita	6	54,000	32,000	.59	32,000	.59	.00
84. San Fernando s/o Placerita	6	54,000	30,000	.56	30,000	.56	.00
85. San Fernando s/o Lyons	6	54,000	26,000	.48	27,000	.50	.02
86. Ave Scott e/o Ryc	6	54,000	10,000	.19	10,000	.19	.00
87. Ave Scott e/o Dickason	6	54,000	21,000	.39	22,000	.41	.02
88. Magic Mtn e/o I-5	8	72,000	57,000	.79	65,000	.90	.11
89. Magic Mtn e/o Tourney	8	72,000	57,000	.79	63,000	.88	.09
90. Magic Mtn e/o McBean	8	72,000	49,000	.68	52,000	.72	.04
91. Magic Mtn e/o Valencia	8	72,000	51,000	.71	51,000	.71	.00
92. Magic mtn e/o San Fernando	6	54,000	44,000	.81	43,000	.80	-.01
93. Tourney n/o Valencia	6	54,000	19,000	.35	19,000	.35	.00
94. Rockwell s/o Valencia	4	32,000	25,000	.78	26,000	.81	.03
95. Tournament s/o McBean	4	32,000	12,000	.38	12,000	.38	.00
96. Valencia e/o I-5	8	72,000	55,000	.76	62,000	.86	.10
98. Valencia e/o Rockwell	8	72,000	68,000	.94	72,000	1.00	.06
99. Valencia e/o McBean	6A	65,000	54,000	.83	56,000	.86	.03 PA
100. Valencia n/o Magic Mtn	6A	65,000	63,000	.97	64,000	.98	.01 PA
101. Soledad e/o Bouquet	6	54,000	40,000	.74	41,000	.76	.02
102. Wiley s/o Lyons	4	32,000	22,000	.69	25,000	.78	.09
103. Wiley n/o Lyons	6	54,000	34,000	.63	35,000	.65	.02
104. Wiley e/o Tournament	6	54,000	27,000	.50	28,000	.52	.02
105. Wiley e/o Orchard Village	6	54,000	40,000	.74	42,000	.78	.04
106. Via Princessa e/o San Ferna	6	54,000	39,000	.72	40,000	.74	.02
107. Via Princessa e/o Magic Mtn	6A	65,000	54,000	.83	55,000	.85	.02 PA
108. 15th St e/o Orchard Village	4	32,000	11,000	.34	12,000	.38	.04
109. Newhall n/o Lyons	4	32,000	5,000	.16	6,000	.19	.03
110. Newhall s/o Lyons	4	32,000	28,000	.88	29,000	.91	.03
111. San Fernando e/o Newhall	6	54,000	46,000	.85	47,000	.87	.02
112. Orchard Village s/o McBean	6	54,000	46,000	.85	51,000	.94	.09
113. Orchard Village s/o Wiley	6	54,000	29,000	.54	30,000	.56	.02
114. Orchard Village s/o Lyons	4	32,000	11,000	.34	11,000	.34	.00
115. Lyons e/o I-5	6	54,000	50,000	.93	52,000	.96	.03
116. Lyons e/o Wiley	6	54,000	44,000	.81	45,000	.83	.02
117. Lyons e/o Orchard Village	6	54,000	52,000	.96	53,000	.98	.02
118. Lyons w/o San Fernando	6	54,000	22,000	.41	24,000	.44	.03
119. McBean e/o Orchard Village	6	54,000	35,000	.65	35,000	.65	.00

Continued

Table 4-3 (cont)
LONG-RANGE ADT VOLUME SUMMARY - NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK

LOCATION*	LANES	CAPACITY	NO-PROJECT		WITH-PROJECT		PROJ. CONTR.
			VOL	V/C	VOL	V/C	
122. Dockweiler e/o San Fernando	6	54,000	23,000	.43	24,000	.44	.01
123. Tibbitts s/o Newhall Ranch	6	54,000	19,000	.35	20,000	.37	.02
124. Dickason s/o Decoro	4	32,000	11,000	.34	12,000	.38	.04
126. Bouquet e/o Seco	6	54,000	51,000	.94	52,000	.96	.02
128. Newhall Ranch w/o Bouquet	8A	86,000	70,000	.81	73,000	.85	.04 ^{PA}
130. Newhall Ranch e/o Santa Clr	6A	65,000	54,000	.83	56,000	.86	.03 ^{PA}
143. Soledad w/o Golden Valley	6	54,000	40,000	.74	41,000	.76	.02
151. Via Princessa w/o MMP	6	54,000	39,000	.72	40,000	.74	.02
164. Santa Clarita n/o NRR	6	54,000	36,000	.67	37,000	.69	.02
171. Santa Clarita n/o Soledad	6	54,000	34,000	.63	35,000	.65	.02
172. Santa Clarita s/o Soledad	6	54,000	39,000	.72	41,000	.76	.04
176. Santa Clarita s/o Via Prncs	6	54,000	23,000	.43	25,000	.46	.03
194. Copperhill w/o McBean	6	54,000	32,000	.59	33,000	.61	.02 ^{PL}
250. "E" s/o Magic Mountain	4	32,000	3,000	.09	14,000	.44	.35
251. Poe s/o Valencia	4	32,000	1,000	.03	2,000	.06	.03

^P Project causes V/C to exceed 1.00

^{PA} Project causes or adds to the need for augmentation

^{PL} Project requires additional lanes compared to No-Project conditions

See Table 2-1 for existing lanes and capacities

XA - X number of lanes, augmented

* A reference map for the link numbering system can be found in Appendix C

Level of service ranges: .00 - .60 A

.61 - .70 B

.71 - .80 C

.81 - .90 D

.91 - 1.00 E

Above 1.00 F

State Highway Capacity Assumptions

The SCVCTM contains representative ADT values for capacity evaluation. These values were applied earlier in this chapter for identifying project impacts on the arterial highway system.

The freeway capacities used in the freeway capacity evaluation results were taken from the following sources:

- ADT Capacities - Santa Clarita Valley Consolidated Traffic Model (SCVCTM)
- I-5 Peak Hour Capacities - Caltrans Route Concept Report, Route 5, February 1991
- SR-14 Peak Hour Capacities - Caltrans Route Concept Report, Route 14, June 1991
- SR-126 Peak Hour Capacities - Caltrans Route Concept Report, Route 126, January 1991

The Caltrans route concept reports (see References 4, 5 and 6 at the end of Chapter 1.0), represent the applicable long-range planning documents for the State Highway system. The route concept reports are long-range planning documents that evaluate projected travel demand over a 20 year period to determine the appropriate type of facility and level of service for each route. These reports provide a basis for the development of the State Transportation Improvement Program and provide a reference for highway improvement planning. The Route Concept Plans describe the long-range plans for each facility, and provide applicable capacities for evaluating traffic volumes.

The freeway capacities from the applicable sources can be summarized as follows:

FREEWAY CAPACITY ASSUMPTIONS			
	LANES (One Direction)	PEAK HOUR (One Direction)	ADT (Both Directions)
I-5 north of SR-14			
Existing	4G	8,000	180,000
Planned	4G + T + HOV	12,500	225,000
SR-14 north of I-5			
Existing	4G	9,000	180,000
Planned	4G + HOV	12,000	225,000
G - General purpose lane T - Truck lane HOV - High occupancy vehicle lane			

The capacity values listed here for the planned lanes have been used in the V/C calculations presented in this chapter.

Interstate 5 Widening Status

Interstate 5 is currently eight lanes from SR-126 to SR-14. This study assumes I-5 will be constructed to eight general purpose lanes plus two HOV lanes and two truck lanes for the buildout time frame. The Route Concept Report for I-5 (see Reference 4 at the end of Chapter 1.0) indicates that the HOV lanes are needed to meet future traffic volumes and should be incorporated into the long-range planning efforts for this facility.

The Los Angeles County Metropolitan Transportation Authority (MTA) recently adopted a 20-year long-range transportation plan (see Reference 10 at the end of Chapter 1.0). The goal of the long-range plan is to design, construct, operate and maintain a safe, reliable, affordable and efficient transportation system that increases mobility, relieves congestion and improves air quality to meet the needs of all Los Angeles County residents. One component of the long-range plan is HOV facilities. The plan shows costs have been allocated to the I-5 HOV project south of SR-14, but not for the HOV project north of SR-14. The long-range plan will be reviewed and readopted every two years and it is probable that because of its demonstrated necessity in the I-5 Route Concept Report, the I-5 HOV project north of SR-14 will be added to the list of projects as soon as funding becomes available. A special capacity analysis was conducted for the I-5 showing the differences in V/C calculations using an eight lane facility (see discussion in Chapter 7.0).

ADT Capacity Analysis - State Highways and Freeways

As described in the Caltrans Route Concept reports, the concept LOS for freeway facilities is LOS F0 (V/C between 1.01 - 1.25). This methodology differs from the arterial LOS ranges shown previously and only applies to freeways. The future ADT volumes and volume/capacity ratios for all locations along the two freeways in the study area are summarized in Table 4-4 for both the City Circulation Element Network and the Alternative Network. Also included are the sections of SR-126 that are assumed to be upgraded to expressway. The SCVCTM capacity values of 14,000 ADT per lane have been used in the V/C calculations for the SR-126 Expressway locations. The link numbers correspond to the SCVCTM link numbering system referred to earlier, and the complete numbering system can be seen in Appendix C.

Table 4-4

FREEWAY AND EXPRESSWAY LONG-RANGE VOLUME SUMMARY

LINK #/LOCATION*	LANES	CAPACITY	NO-PROJECT		WITH-PROJECT		PROJ. CONTR.
			VOL	V/C	VOL	V/C	
I. CITY CIRCULATION ELEMENT NETWORK							
45. SR-126 w/o Potrero Cyn	6	54,000	38,000	.70	45,000	.83	.13
46. SR-126 w/o Chiquito Cyn	6	84,000	34,000	.40	53,000	.63	.23
47. SR-126 e/o Chiquito Cyn	6	84,000	39,000	.46	69,000	.82	.36
48. SR-126 w/o Commerce Ctr Dr	6	84,000	37,000	.44	72,000	.86	.42
49. SR-126 w/o I-5	8	112,000	62,000	.55	90,000	.80	.25
200. I-5 n/o SR-126	10	225,000	162,000	.72	166,000	.74	.02
201. I-5 s/o Newhall Ranch Rd	10	225,000	164,000	.73	166,000	.74	.01
202. I-5 s/o Magic Mountain	10	225,000	172,000	.76	177,000	.79	.03
203. I-5 s/o Valencia	10	225,000	197,000	.88	205,000	.91	.03
204. I-5 s/o McBean	10	225,000	189,000	.84	198,000	.88	.04
205. I-5 s/o Lyons	10	225,000	188,000	.84	201,000	.89	.05
206. SR-14 e/o San Fernando	10	225,000	183,000	.81	187,000	.83	.02
210. SR-14 e/o I-5	10	225,000	203,000	.90	209,000	.93	.03
211. I-5 n/o SR-14	10	225,000	200,000	.89	213,000	.95	.06
212. I-5 s/o SR-14	14	315,000	393,000	1.25	411,000	1.30	.05

LOCATION*	LANES	CAPACITY	NO-PROJECT		WITH-PROJECT		PROJ. CONTR.
			VOL	V/C	VOL	V/C	
II. NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK							
45. SR-126 w/o Potrero Cyn	6	54,000	38,000	.70	45,000	.83	.13
46. SR-126 w/o Chiquito Cyn	6	84,000	34,000	.40	54,000	.64	.24
47. SR-126 e/o Chiquito Cyn	6	84,000	39,000	.46	69,000	.82	.36
48. SR-126 w/o Commerce Ctr Dr	6	84,000	37,000	.44	72,000	.86	.42
49. SR-126 w/o I-5	8	112,000	62,000	.55	89,000	.79	.24
200. I-5 n/o SR-126	10	225,000	162,000	.72	165,000	.73	.01
201. I-5 s/o Newhall Ranch Rd	10	225,000	162,000	.72	165,000	.73	.01
202. I-5 s/o Magic Mountain	10	225,000	171,000	.76	175,000	.78	.02
203. I-5 s/o Valencia	10	225,000	195,000	.87	203,000	.90	.03
204. I-5 s/o McBean	10	225,000	188,000	.84	197,000	.88	.04
205. I-5 s/o Lyons	10	225,000	188,000	.84	199,000	.88	.04
206. SR-14 e/o San Fernando	10	225,000	183,000	.81	187,000	.83	.02
210. SR-14 e/o I-5	10	225,000	204,000	.91	209,000	.93	.02
211. I-5 n/o SR-14	10	225,000	200,000	.89	212,000	.94	.05
212. I-5 s/o SR-14	14	315,000	393,000	1.25	411,000	1.30	.05

Note: The 10-lanes shown for I-5 north of SR-14 include eight general purpose lanes and two HOV lanes. The 14 lanes shown for I-5 south of SR-14 include 12 general purpose lanes and two HOV lanes. The Caltrans route concept report also includes truck lanes, and those are included in the capacities listed above.

* A link location map can be found in Appendix C

The largest project related traffic increase on the freeway system is along I-5 south of Lyons/Pico Canyon Road. The project increases future traffic volumes by approximately seven percent at this location. The results of this analysis show that future freeway volumes, both with and without the project, can be carried by the planned freeway system in this area within the LOS concept criteria ($V/C < 1.25$) except for I-5 south of the SR-14. Furthermore, this is the only location to exceed the $V/C > 1.00$ criteria used throughout this study. For a further discussion of impacts to State Highways refer to the Congestion Management Program section found later in this chapter.

SR-126 Capacity Analysis - Ventura County Line

A special analysis was made for SR-126 west of the project. The methodology follows that used by Caltrans in the Route 126 Concept Report (Reference 6 at the end of Chapter 1.0). Route Segment 4 in that analysis is from Fillmore to the County line, and the capacity evaluation is based on the four-lane rural highway planned for this section of roadway. A four-lane rural highway designation assumes minimal side street access, and no signalized intersections.

The Caltrans capacity evaluation procedure uses peak hour directional volumes and is based on the 1985 Highway Capacity Manual (HCM), the applicable capacity reference manual at the time it was prepared. The HCM has since been updated and the section for rural highways in the most recent HCM gives a set of peak hour lane capacities to be used for planning purposes (see Table 7-11 in the December 1997 revision to the 1985 and 1994 HCM). Applicable values from that table together with the relevant assumptions from the HCM are as follows:

SR-126 RURAL HIGHWAY CAPACITY		
Assumptions:	Free Flow Speed:	55 mph
	Type of Terrain:	Level
	Percent Trucks:	5 percent
Capacity (Maximum Peak Hour Vehicles Per Lane):		880 (LOS B)
		1220 (LOS C)
		1450 (LOS D)

For a four-lane divided roadway, the capacity for each direction is double these values, giving a maximum one-way peak hour volume of 2,440 for LOS "C" and 2,900 for LOS "D". The LOS criteria

described in the Route Concept Report for SR-126 from Fillmore to the County line is LOS "D" (V/C < .90).

Comparing these values to the long-range peak hour volumes on SR-126 at the County line gives the following volumes and LOS results:

PEAK HOUR VOLUMES - SR-126 AT VENTURA COUNTY LINE									
CITY CIRCULATION ELEMENT NETWORK					NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK				
		NO-PROJECT		W/PROJECT		NO-PROJECT		W/PROJECT	
		VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
AM	eastbound	1,768	(C)	1,936	(C)	1,768	(C)	1,936	(C)
	westbound	1,573	(B)	1,932	(C)	1,576	(B)	1,935	(C)
PM	eastbound	1,719	(B)	2,075	(C)	1,719	(B)	2,074	(C)
	westbound	1,823	(C)	2,059	(C)	1,817	(C)	2,062	(C)

Hence, the forecast peak hour volumes represent LOS "C" operation or better on the planned four-lane roadway, indicating no deficiencies.

HIGHWAY AND FREEWAY INTERCHANGES

A detailed analysis was made of the impacts of the project on the freeway interchanges which will serve project traffic. In this case, peak hour volumes were used to evaluate capacity impacts since ramp capacity is defined according to its ability to carry peak hour traffic. Long-range peak hour volumes for all freeway ramps were forecast using the SCVCTM, and with and without project V/C ratios compared. The results are summarized in Tables 4-5 and 4-6 for the City Circulation Element Network and Alternative Network, respectively. Peak hour ramp capacity is 1,600 vehicles per hour which is consistent with capacity assumptions used in freeway interchange studies. The "P" and "C" notation is again used here to indicate locations that are impacted by the project. Project impact mitigation for both networks is addressed in the next chapter.

Table 4-5

LONG-RANGE PEAK HOUR FREEWAY RAMP VOLUMES - CITY CIRCULATION ELEMENT NETWORK

LOCATION	LANES	CAPACITY	----- AM PEAK HOUR -----					----- PM PEAK HOUR -----				
			NO-PROJECT VOL	WITH-PROJECT V/C	PROJ. VOL	WITH-PROJECT V/C	PROJ. CONTR.	NO-PROJECT VOL	WITH-PROJECT V/C	PROJ. VOL	WITH-PROJECT V/C	PROJ. CONTR.
105. I-5 NB Off At Lyons	2	3,200	626	.22	567	.18	-.02	1,867	.58	1,904	.60	.02
106. I-5 NB On At Lyons	1	1,600	462	.29	427	.27	-.02	589	.37	649	.41	.04
107. I-5 SB Off At Lyons	1	1,600	373	.23	477	.30	.07	509	.32	502	.31	-.01
108. I-5 SB On At Lyons	1	1,600	2,054	1.28	1,936	1.21	-.07	782	.49	772	.48	-.01
109. I-5 NB Off At McBean	1	1,600	892	.56	1,000	.63	.07	1,484	.93	1,547	.97	.04
110. I-5 NB On At McBean	1	1,600	841	.53	765	.48	-.05	756	.47	750	.47	.00
111. I-5 NB On Loop at McBean	1	1,600	429	.27	482	.30	.03	344	.22	316	.20	-.02
112. I-5 SB Off At McBean	1	1,600	550	.34	620	.39	.05	721	.45	698	.44	-.01
113. I-5 SB On At McBean	1	1,600	1,030	.64	1,303	.81	-.17	931	.58	890	.56	-.02
114. I-5 SB On Loop At McBean	1	1,600	479	.30	451	.28	-.02	0	.00	0	.00	.00
115. I-5 NB Off At Valencia	1	1,600	1,553	.97	1,484	.93	-.04	1,408	.88	1,454	.91	.03
116. I-5 NB On Loop at Valencia	1	1,600	424	.26	409	.26	.00	399	.25	597	.37	.12
118. I-5 SB Off At Valencia	1	1,600	414	.26	577	.36	.10	524	.33	642	.40	.07
119. I-5 SB On At Valencia	1	1,600	143	.09	397	.25	.16	712	.45	720	.45	.00
120. I-5 SB On Loop At Valencia	1	1,600	1,457	.91	1,428	.89	-.02	1,202	.75	1,071	.67	-.08
121. I-5 NB Off At Magic Mtn	1	1,600	1,641	1.03	1,606	1.00	-.03	1,465	.92	1,492	.93	.01
122. I-5 NB On At Magic Mtn	1	1,600	850	.53	851	.53	.00	1,181	.74	879	.55	-.19
123. I-5 SB Off At Magic Mtn	1	1,600	1,002	.63	1,150	.72	.09	1,250	.78	1,359	.85	.07
124. I-5 SB On At Magic Mtn	1	1,600	532	.33	1,024	.64	.31	1,143	.71	1,215	.76	.05
125. I-5 SB Off At Rye	1	1,600	1,009	.63	938	.59	-.04	318	.20	257	.16	-.04
126. I-5 SB On At Rye	1	1,600	138	.09	119	.07	-.02	1,549	.97	1,543	.96	-.01
127. I-5 NB Off At NRR/SR-126	1	1,600	1,548	.97	1,620	1.01	.04 ^P	1,191	.74	1,412	.88	.14
128. I-5 NB On At NRR/SR-126	1	1,600	725	.45	957	.60	.15	1,144	.72	1,248	.78	.06
129. I-5 NB On Loop at NRR/SR126	1	1,600	458	.29	724	.45	.16	475	.30	736	.46	.16
130. I-5 SB Off At NRR/SR-126	1	1,600	1,019	.64	1,068	.67	.03	1,172	.73	1,231	.77	.04
131. I-5 SB On At NRR/SR-126	1	1,600	679	.42	1,368	.86	.44	976	.61	1,410	.88	.27
132. I-5 SB On Loop at NRR/SR126	1	1,600	20	.01	7	.00	-.01	45	.03	32	.02	-.01
134. SR-126 WB Off at Comm Ctr	1	1,600	2,290	1.43	1,780	1.11	-.32	915	.57	1,093	.68	.11
135. SR-126 WB On at Comm Ctr	1	1,600	133	.08	333	.21	.13	173	.11	751	.47	.36

(Continued)

Table 4-5 (cont)

LONG-RANGE PEAK HOUR FREEWAY RAMP VOLUMES - CITY CIRCULATION ELEMENT NETWORK

LOCATION	LANES	CAPACITY	----- AM PEAK HOUR -----					----- PM PEAK HOUR -----				
			NO-PROJECT VOL	WITH-PROJECT V/C	NO-PROJECT VOL	WITH-PROJECT V/C	PROJ. CONTR.	NO-PROJECT VOL	WITH-PROJECT V/C	NO-PROJECT VOL	WITH-PROJECT V/C	PROJ. CONTR.
136. SR-126 EB Off at Comm Ctr	1	1,600	206	.13	597	.37	.24	43	.03	302	.19	.16
137. SR-126 EB On at Comm Ctr	1	1,600	335	.21	722	.45	.24	1,358	.85	1,295	.81	-.04
138. SR-126 WB Off at Franklin	1	1,600	399	.25	497	.31	.06	25	.02	341	.21	.19
139. SR-126 WB On at Franklin	1	1,600	73	.05	124	.08	.03	422	.26	417	.26	.00
140. SR-126 EB Off at Franklin	1	1,600	354	.22	607	.38	.16	109	.07	241	.15	.08
141. SR-126 EB On at Franklin	1	1,600	51	.03	580	.36	.33	352	.22	809	.51	.29
142. SR-126 WB Off at Chiquito	1	1,600	63	.04	555	.35	.31	286	.18	1,027	.64	.46
143. SR-126 WB On at Chiquito	1	1,600	33	.02	310	.19	.17	29	.02	186	.12	.10
144. SR-126 EB Off at Chiquito	1	1,600	22	.01	110	.07	.06	50	.03	359	.22	.19
145. SR-126 EB On at Chiquito	1	1,600	0	.00	924	.58	.58	0	.00	0	.00	.00
146. SR-126 EB On Loop at Chiquito	1	1,600	235	.15	205	.13	-.02	151	.09	580	.36	.27

^p Project Impact - Project causes V/C to exceed 1.00

^c Contribution - No-project and with-project V/C exceeds 1.00

Table 4-6

LONG-RANGE PEAK HOUR FREEWAY RAMP VOLUMES - NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK

LOCATION	LANES	CAPACITY	----- AM PEAK HOUR -----					----- PM PEAK HOUR -----				
			NO-PROJECT		WITH-PROJECT		PROJ.	NO-PROJECT		WITH-PROJECT		PROJ.
			VOL	V/C	VOL	V/C	CONTR.	VOL	V/C	VOL	V/C	CONTR.
105. I-5 NB Off At Lyons	2	3,200	594	.19	557	.17	-.02	1,909	.60	1,943	.61	.01
106. I-5 NB On At Lyons	1	1,600	456	.29	417	.26	-.03	568	.36	633	.40	.04
107. I-5 SB Off At Lyons	1	1,600	358	.22	450	.28	.06	508	.32	496	.31	-.01
108. I-5 SB On At Lyons	1	1,600	2,005	1.25	1,969	1.23	-.02	789	.49	777	.49	.00
109. I-5 NB Off At McBean	1	1,600	892	.56	1,016	.64	.08	1,470	.92	1,527	.95	.03
110. I-5 NB On At McBean	1	1,600	794	.50	683	.43	-.07	715	.45	747	.47	.02
111. I-5 NB On Loop at McBean	1	1,600	527	.33	425	.27	-.06	262	.16	336	.21	.05
112. I-5 SB Off At McBean	1	1,600	545	.34	586	.37	.03	720	.45	792	.50	.05
113. I-5 SB On At McBean	1	1,600	1,042	.65	1,339	.84	.19	874	.55	951	.59	.04
114. I-5 SB On Loop At McBean	1	1,600	573	.36	541	.34	-.02	0	.00	0	.00	.00
115. I-5 NB Off At Valencia	1	1,600	1,542	.96	1,602	1.00	.04	1,293	.81	1,435	.90	.09
116. I-5 NB On Loop at Valencia	1	1,600	254	.16	316	.20	.04	239	.15	260	.16	.01
118. I-5 SB Off At Valencia	1	1,600	439	.27	701	.44	.17	363	.23	446	.28	.05
119. I-5 SB On At Valencia	1	1,600	147	.09	382	.24	.15	830	.52	750	.47	-.05
120. I-5 SB On Loop At Valencia	1	1,600	1,340	.84	1,289	.81	-.03	1,145	.72	1,034	.65	-.07
121. I-5 NB Off At Magic Mtn	1	1,600	1,559	.97	1,315	.82	-.15	1,425	.89	1,365	.85	-.04
122. I-5 NB On At Magic Mtn	1	1,600	1,171	.73	1,203	.75	.02	1,221	.76	1,199	.75	-.01
123. I-5 SB Off At Magic Mtn	1	1,600	1,058	.66	943	.59	-.07	1,283	.80	1,386	.87	.07
124. I-5 SB On At Magic Mtn	1	1,600	548	.34	1,048	.66	.32	1,122	.70	1,257	.79	.09
125. I-5 SB Off At Rye	1	1,600	933	.58	1,098	.69	.11	464	.29	496	.31	.02
126. I-5 SB On At Rye	1	1,600	221	.14	234	.15	.01	1,571	.98	1,590	.99	.01
127. I-5 NB Off At NRR/SR-126	1	1,600	1,538	.96	1,743	1.09	.13 ^P	1,152	.72	1,407	.88	.16
128. I-5 NB On At NRR/SR-126	1	1,600	661	.41	874	.55	.14	1,182	.74	1,214	.76	.02
129. I-5 NB On Loop at NRR/SR126	1	1,600	463	.29	722	.45	.16	470	.29	720	.45	.16
130. I-5 SB Off At NRR/SR-126	1	1,600	996	.62	1,050	.66	.04	1,176	.74	1,130	.71	-.03
131. I-5 SB On At NRR/SR-126	1	1,600	739	.46	1,342	.84	.38	1,081	.68	1,416	.89	.21
132. I-5 SB On Loop at NRR/SR126	1	1,600	25	.02	7	.00	-.02	47	.03	36	.02	-.01
134. SR-126 WB Off at Comm Ctr	1	1,600	2,217	1.39	1,798	1.12	-.27	916	.57	1,059	.66	.09
135. SR-126 WB On at Comm Ctr	1	1,600	132	.08	385	.24	.16	170	.11	852	.53	.42

(Continued)

Table 4-6 (cont)

LONG-RANGE PEAK HOUR FREEWAY RAMP VOLUMES - NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK

LOCATION	LANES	CAPACITY	----- AM PEAK HOUR -----					----- PM PEAK HOUR -----				
			NO-PROJECT VOL	WITH-PROJECT V/C	PROJ. VOL	WITH-PROJECT V/C	PROJ. CONTR.	NO-PROJECT VOL	WITH-PROJECT V/C	PROJ. VOL	WITH-PROJECT V/C	PROJ. CONTR.
136. SR-126 EB Off at Comm Ctr	1	1,600	130	.08	646	.40	.32	51	.03	301	.19	.16
137. SR-126 EB On at Comm Ctr	1	1,600	335	.21	783	.49	.28	1,292	.81	1,260	.79	-.02
138. SR-126 WB Off at Franklin	1	1,600	382	.24	510	.32	.08	48	.03	377	.24	.21
139. SR-126 WB On at Franklin	1	1,600	73	.05	129	.08	.03	560	.35	492	.31	-.04
140. SR-126 EB Off at Franklin	1	1,600	367	.23	611	.38	.15	109	.07	243	.15	.08
141. SR-126 EB On at Franklin	1	1,600	53	.03	551	.34	.31	351	.22	803	.50	.28
142. SR-126 WB Off at Chiquito	1	1,600	59	.04	568	.36	.32	271	.17	1,053	.66	.49
143. SR-126 WB On at Chiquito	1	1,600	33	.02	318	.20	.18	34	.02	183	.11	.09
144. SR-126 EB Off at Chiquito	1	1,600	21	.01	111	.07	.06	47	.03	356	.22	.19
145. SR-126 EB On at Chiquito	1	1,600	0	.00	915	.57	.57	0	.00	0	.00	.00
146. SR-126 EB On Loop at Chiquito	1	1,600	244	.15	201	.13	-.02	148	.09	579	.36	.27

^F Project Impact - Project causes V/C to exceed 1.00

^C Contribution - No-project and with-project V/C exceeds 1.00

CONGESTION MANAGEMENT PROGRAM (CMP)

Background

The CMP is a state-mandated program enacted by the State legislature with the passage of various Assembly Bills. The requirements for the program became effective with the voter approval of Proposition 111 in June of 1990. Proposition 111 provided a nine cent increase in the state gas tax over a five year period.

The 1995 Congestion Management Program document states that:

"the CMP was created to link land use, transportation, and air quality decisions; to develop a partnership among transportation decision makers on devising appropriate transportation solutions that includes all modes of travel; and to propose transportation projects which are eligible to compete for state gas tax funds."

This traffic analysis addresses the Land Use Analysis Program, which requires that the impacts of land use decisions on the regional transportation system be evaluated for projects preparing an EIR.

The CMP highway network which is evaluated in the impact analysis, consists of all state highways (both freeways and arterials) and principal arterials that meet the criteria established by the Metropolitan Transportation Authority (MTA). Impacts are evaluated by monitoring level of service performance standards for highway segments and key roadway intersections on the CMP highway network as designated by MTA. The CMP guidelines indicate that for planning framework documents such as General Plan Amendments and Specific Plans, the arterial segment analysis (which monitors at least one segment between CMP intersections) may be substituted for the intersection analysis.

Another component of the CMP program is the Transit Analysis Program which monitors project impacts on the regional transit system and provides the planning framework to make the most effective use of transit services.

Land Use Analysis Program

The purpose of the Land Use analysis program is to ensure that local jurisdictions consider the regional impact of new development through the land use approval process. The program is designed to build on the California Environmental Quality Act (CEQA) process in identifying the impact of development on the CMP system. The program assists in inter-jurisdictional review of regional impacts in an EIR by providing a consistent methodology.

A Transportation Impact Analysis (TIA) is required in the EIR as part of the program. It should be noted that development projects requiring subsequent approvals do not need to repeat this process as long as no significant changes are made to the project.

The study area of the TIA is defined by a focused set of criteria used only to satisfy CMP requirements. In many cases, the study area used in the traffic analysis may differ from the study area used for the TIA. The study area for the TIA is defined by the following criteria:

Arterial segments - 50 or more peak hour trips (total of both directions)

Freeway segments - 150 or more peak hour trips (in either direction)

The CMP study area for the Newhall Ranch project was expanded from the study area used in the rest of the traffic study to include four freeway monitoring stations located south of the I-5/SR-14 confluence. Because these four freeway monitoring stations are located outside of the SCVCTM model area, regional growth forecasts approved by MTA were used to determine regional impacts at these locations. Although the segment of I-5 south of SR-14 is not a freeway monitoring station, it is shown here for informational purposes.

As specified in the CMP guidelines (Reference 9 at the end of Chapter 1.0), the criteria for determining significant impacts for arterial segments and freeway monitoring stations is defined by a V/C increase of two percent or more ($V/C \geq .02$) which causes or worsens LOS "F" ($V/C > 1.00$).

Evaluation of project impacts for CMP locations is based on peak hour volumes. The peak hour capacities for the freeway system was taken from the appropriate route concept report and the peak hour capacities for arterials were taken from the SCVCTM. These are presented below:

PEAK HOUR CAPACITIES	
	CAPACITY PER LANE
FREEWAYS	
I-5, I-405, SR-126	
General Purpose Lane (G)	2,000
Truck Lane (T)	1,500
High Occupancy Vehicle Lane (HOV)	3,000
SR-14	
General Purpose Lane (G)	2,250
ARTERIALS	
Major Highway (6 lane)	1,000
Secondary Highway (4 lane)	850

The long-range with and without project volume/capacity ratios for CMP locations are summarized in Table 4-7. The table is in two parts, the first section is for the City Circulation Element Network and the second section is for the Alternative Network.

The CMP freeway monitoring station located on I-5 south of Osborne Street shows a significant project impact in the AM peak hour for the southbound direction and in the PM peak hour for the northbound direction. Although a project impact of two percent is also shown for the I-405 south of Mullholland Drive during the PM peak hour for the northbound direction, the actual project contribution is just over one percent (1.2 percent) when the volume to capacity ratios are calculated without rounding the ratios to two decimal places. Hence this location is not impacted according to CMP guidelines.

The impacts shown on the I-5 Freeway at I-5\Osborne Street and I-5 south of SR-14 are regional in nature and is under the jurisdiction of Caltrans. The I-5 route concept report published by Caltrans indicates that HOV travel lanes are recommended by the year 2010. The HOV lanes were

Table 4-7

CMP LOCATION ANALYSIS

LOCATION	LANES	CAPACITY	AM PEAK HOUR					PM PEAK HOUR				
			NO-PROJECT VOL	V/C	WITH-PROJECT VOL	V/C	PROJECT CONTR	NO-PROJECT VOL	V/C	WITH-PROJECT VOL	V/C	PROJECT CONTR
I. CITY CIRCULATION ELEMENT NETWORK												
101. SR-14 NB e/o I-5	4G + HOV	12000	4171	.35	4076	.34	-.01	10302	.86	10839	.90	.04
102. SR-14 SB e/o I-5	4G + HOV	12000	10713	.89	11293	.94	.05	6323	.53	6416	.53	.00
103. I-5 NB n/o SR-14	4G + T + HOV	12500	7646	.61	7545	.60	-.01	9255	.74	10048	.80	.06
104. I-5 SB n/o SR-14	4G + T + HOV	12500	8937	.71	9985	.80	.09	8202	.66	8335	.67	.01
148A. MMP e/o Valencia EB	3	3000	1633	.54	1796	.60	.06	2503	.83	2565	.86	.03
148B. MMP e/o Valencia WB	3	3000	2359	.79	2335	.78	-.01	1634	.54	1779	.59	.05
153A. Lyons e/o San Fern EB	2	1700	593	.35	599	.35	.00	1178	.69	1187	.70	.01
153B. Lyons e/o San Fern WB	2	1700	1465	.86	1359	.80	-.06	987	.58	1081	.64	.06
158A. SR-126 e/o Chiquito EB	3	6000	1883	.31	3408	.57	.26	1294	.22	2596	.43	.21
158B. SR-126 e/o Chiquito WB	3	6000	839	.14	2076	.35	.21	1957	.33	3380	.56	.23
165. I-5 NB n/o SR-126	5	10000	4935	.49	5363	.54	.05	6706	.67	6966	.70	.03
166. I-5 SB n/o SR-126	5	10000	6669	.67	6647	.66	-.01	6247	.62	6293	.63	.01
167A. Sierra Hwy n/o I-5 EB	3	3000	298	.10	252	.08	-.02	1410	.47	1415	.47	.00
167B. Sierra Hwy n/o I-5 WB	3	3000	1414	.47	1471	.49	.02	677	.23	665	.22	-.01
200A. I-5 NB s/o Osborne	6G + HOV	15000	6980	.46	7403	.49	.03	18048	1.20	19135	1.27	.07
200B. I-5 SB s/o Osborne	6G + HOV	15000	14382	.96	15469	1.03	.07	7393	.49	7816	.52	.03
201A. I-5 NB n/o Burbank	4G + HOV	11000	6012	.55	6189	.56	.01	7880	.72	8333	.76	.04
201B. I-5 SB n/o Burbank	4G + HOV	11000	8913	.81	9366	.85	.04	6348	.58	6525	.59	.01
202A. I-405 NB n/o Roscoe	5G + HOV	13000	5408	.41	5697	.44	.03	8012	.62	8755	.67	.05
202B. I-405 SB n/o Roscoe	5G + HOV	13000	8040	.62	8783	.68	.06	5377	.41	5666	.44	.03
203A. I-405 NB s/o Mullholland	5G + HOV	13000	9880	.76	9943	.76	.00	14600	1.12	14761	1.14	.02
203B. I-405 SB s/o Mullholland	5G + HOV	13000	11680	.90	11841	.91	.01	7880	.61	7943	.61	.00
204a. I-5 NB s/o SR-14	6G + 2t + HOV	18000	11817	.66	11251	.63	-.03	19560	1.09	21013	1.17	.08
204b. I-5 SB s/o SR-14	6G + 2t + HOV	18000	19637	1.09	21554	1.20	.11	14520	.81	14489	.80	-.01
II. NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK												
101. SR-14 NB e/o I-5	4G + HOV	12000	4164	.35	4097	.34	-.01	10338	.86	10897	.91	.05
102. SR-14 SB e/o I-5	4G + HOV	12000	10717	.89	11280	.94	.05	6348	.53	6420	.54	.01

(Continued)

Table 4-7 (cont)
CMP LOCATION ANALYSIS

LOCATION	LANES	CAPACITY	----- AM PEAK HOUR -----					----- PM PEAK HOUR -----				
			NO-PROJECT VOL	V/C	WITH-PROJECT VOL	V/C	PROJECT CONTR	NO-PROJECT VOL	V/C	WITH-PROJECT VOL	V/C	PROJECT CONTR
II. NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK (cont)												
103. I-5 NB n/o SR-14	4G + T + HOV	12500	7654	.61	7526	.60	-.01	9222	.74	9991	.80	.06
104. I-5 SB n/o SR-14	4G + T + HOV	12500	8935	.71	10009	.80	.09	8192	.66	8332	.67	.01
148A. MMP e/o Valencia EB	3	3000	1546	.52	1752	.58	.06	2709	.90	2646	.88	-.02
148B. MMP e/o Valencia WB	3	3000	2557	.85	2404	.80	-.05	1457	.49	1663	.55	.06
153A. Lyons e/o San Fern EB	2	1700	567	.33	586	.34	.01	1213	.71	1199	.71	.00
153B. Lyons e/o San Fern WB	2	1700	1476	.87	1336	.79	-.08	986	.58	1051	.62	.04
158A. SR-126 e/o Chiquito EB	3	6000	1892	.32	3418	.57	.25	1309	.22	2548	.42	.20
158B. SR-126 e/o Chiquito WB	3	6000	855	.14	2122	.35	.21	1962	.33	3432	.57	.24
165. I-5 NB n/o SR-126	5	10000	4998	.50	5404	.54	.04	6720	.67	6991	.70	.03
166. I-5 SB n/o SR-126	5	10000	6593	.66	6624	.66	.00	6120	.61	6154	.62	.01
167A. Sierra Hwy n/o I-5 EB	3	3000	258	.09	234	.08	-.01	1407	.47	1434	.48	.01
167B. Sierra Hwy n/o I-5 WB	3	3000	1426	.48	1472	.49	.02	691	.23	682	.23	.00
200A. I-5 NB s/o Osborne	6G + HOV	15000	6980	.46	7403	.49	.03	18048	1.20	19135	1.28	.08
200B. I-5 SB s/o Osborne	6G + HOV	15000	14382	.96	15469	1.03	.07	7393	.49	7816	.52	.03
201A. I-5 NB n/o Burbank	4G + HOV	11000	6012	.55	6189	.56	.01	7880	.72	8333	.76	.04
201B. I-5 SB n/o Burbank	4G + HOV	11000	8913	.81	9366	.85	.04	6348	.58	6525	.59	.01
202A. I-405 NB n/o Roscoe	5G + HOV	13000	5408	.41	5697	.44	.03	8012	.62	8755	.67	.05
202B. I-405 SB n/o Roscoe	5G + HOV	13000	8040	.62	8783	.68	.06	5377	.41	5666	.44	.03
203A. I-405 NB s/o Mullholland	5G + HOV	13000	9880	.76	9943	.76	.00	14600	1.12	14761	1.14	.02
203B. I-405 SB s/o Mullholland	5G + HOV	13000	11680	.90	11841	.91	.01	7880	.61	7943	.61	.00
204a. I-5 NB s/o SR-14	6G + 2t + HOV	18000	11817	.66	11251	.63	-.03	19559	1.09	21012	1.17	.08
204b. I-5 SB s/o SR-14	6G + 2t + HOV	18000	19623	1.09	21536	1.20	.11	14511	.81	14471	.80	-.01

Notes: G = General Purpose Freeway Lane
T = Truck Freeway Lane
HOV = High Occupancy Vehicle Freeway Lane
A = Augmented Arterial

included in the capacity analysis, but it appears that additional capacity may be necessary to accommodate future growth in the region based on CMP guidelines. Caltrans' guidelines in the route concept report indicate that satisfactory performance is given with the addition of the HOV lanes.

The MTA long-range plan identifies the need for capacity enhancement projects and allocates future revenues through the year 2015 accordingly. The I-5 HOV project is listed as an additional project that would enhance the baseline transportation system. Funding for HOV projects consists of monies from Proposition C (the countywide one-half cent sales tax increase to be used for public transit purposes), State and Local partnerships, State TDM funds, Intermodal Surface Transportation Efficiency Act (ISTEA), and Flexible Congestion Relief funds (state and federal gas tax revenues). As previously noted, the MTA long range plan is updated every two years and will regularly re-evaluate the need for additional capacity.

The Newhall Ranch Specific Plan identifies transit-friendly design standards to promote alternative transportation methods in response to the congestion and air quality goals for Los Angeles County. These alternative commuting methods are promoted in the Specific Plan through project design components such as the extensive walking and bicycle trail system that links the various development areas to the village centers where access to non-residential uses such as schools, offices, and retail shopping can occur. Provisions for bus turnouts and the reservation of right-of-way for a future Metrolink line is being reserved for the anticipated future transit demand of the project. The Specific Plan is also subject to the Los Angeles County's Transportation Demand Management Ordinance, as well as on-going CMP review at the tract map level. Examples of future TDM strategies could include childcare facilities integrated with development, employer based ridesharing operations and incentives or park- and-ride lots. All of these elements encourage the use of travel modes other than driving alone and help to reduce the amount of vehicle trips on the roadway system during peak hours and reduce the impact of project-generated traffic on the regional highway system.

Countywide Deficiency Plan

The CMP statute requires the preparation of deficiency plans when portions of the CMP highway system do not meet the established level of service standard, such as impacts identified above at the Osborne Street/I-5 Freeway monitoring station. The deficiency plan is linked to the Land Use

Analysis Program because it provides jurisdictions the opportunity to plan for mitigation before impacts occur due to new development.

The CMP allows each jurisdiction to mitigate impacts created by new development with an appropriate amount of improvements and/or land use strategies based on a point system. Under this point system, new development generates debit points which represent the jurisdiction's mitigation goal. Credit points are awarded based on the construction of improvements and/or a number of land use strategies. These credits serve as the basis by which the jurisdictions meet mitigation goals. The CMP allows mitigation in the form of credits to not be directly associated with a specific deficiency, thereby giving local jurisdictions the flexibility to prioritize improvements based on local needs and also to partner with other jurisdictions to resolve regional issues.

While the CMP requires an assessment of project impacts through the TIA and the estimation of debit and credit points through the Countywide Deficiency Plan, impacts will be assessed with each tract map, and the deficiency plan debits and credits will be assigned when building permits are issued, or when land use strategies are implemented and/or transportation improvements are made. Therefore, this analysis shows the gross impact on the CMP system and provides an estimate of the relative balance of mitigation contained in the plan. Actual debits and credits will be determined in the future and documented through an Annual Monitoring Activity Report based on the CMP guidelines and prepared in consultation with MTA. The specific value of individual development and improvement projects within the Newhall Ranch Specific Plan area will be determined at that time.

The Countywide Deficiency Plan and Annual Monitoring Activity Report also serve as a basis for the allocation of state gas tax funds to the County. For instance, gas taxes could be withheld from the County if the County's overall mitigation goal is not met. These gas taxes are used for various regional improvements such as freeway widening, HOV lanes, and mass transit. Specific facilities are identified in MTA's Long Range Plan which dedicates gas tax dollars as well as other funding sources to construct needed freeway and other transit improvements in the future.

Table 4-8 shows the debit points accrued by the Newhall Ranch project for each type of residential and non-residential land use. The total debit points for the project are projected to be

Table 4-8

CMP PROJECT DEBITS

SECTION I - NEW DEVELOPMENT ACTIVITY REPORT
PART 1: NEW DEVELOPMENT ACTIVITY

<u>Category</u>	<u>Dwelling Units</u>		<u>Debit Value</u>		<u>Subtotal</u>
RESIDENTIAL DEVELOPMENT ACTIVITY					
Single Family Residential (detached)	9,390	x	6.80	=	(63,852)
Multi-Family Residential (attached)	12,225	x	4.76	=	(58,191)
<u>Category</u>	<u>1000 Gross Square Feet</u>		<u>Debit Value</u>		<u>Subtotal</u>
COMMERCIAL DEVELOPMENT ACTIVITY					
Commercial (> 300,000 sq.ft.)	1,679	x	17.80	=	(29,886)
<u>Category</u>	<u>1000 Gross Square Feet</u>		<u>Debit Value</u>		<u>Subtotal</u>
NON-RETAIL DEVELOPMENT ACTIVITY					
Industrial	1,513	x	6.08	=	(9,199)
Office (> 300,000 sq.ft.)	2,489	x	7.35	=	(18,294)
<u>Category</u>	<u>Trips</u>		<u>Value</u>		<u>Subtotal</u>
OTHER DEVELOPMENT ACTIVITY					
Schools	5,700	x	0.71	=	(4,047)
Other	4,300	x	0.71	=	(3,053)
Total Current Congestion Mitigation Goal (Debit Points)				=	(186,522)

186,522. As defined in the CMP, these debit points are the mitigation goals associated with the project.

Credit points to offset debit points are earned by a variety of means. Land use strategies such as development near transit centers, mixed-use development, and integrated child care facilities are examples of how to earn credit points. Many of these concepts have been incorporated into the Newhall Ranch Specific Plan, and will be implemented as development occurs. Capital improvements for highway lanes, freeway grade separation, freeway ramp additions or modifications, and rail stations can also be used to earn credit points.

The CMP document states that:

"each local jurisdiction may select the actions it deems most appropriate for its community. Mitigation measures can be applied throughout the jurisdiction, within a subarea, at a specific project, or in partnership with other jurisdictions. Once the jurisdiction chooses its mitigation strategies, the basic requirement is that the overall value of the mitigation program must achieve the jurisdiction's mitigation goal as determined by new development activity."

Table 4-9 summarizes the credit points from the project's residential mixed use development and the capital improvements being planned for construction by the project. While credits are preliminary at this point, and will be evaluated in the future at the tentative tract map level, even in this preliminary form, the 186,522 debit points of the project are offset by the 365,340 credit points. Of these credit points, 110,400 points were awarded for the SR-126 improvements between the County line and Commerce Center Drive. If Caltrans funded these improvements, the total project credit points would be reduced to 254,940, still providing a surplus of credit points.

The preliminary surplus credit points provide the county with added flexibility in the future because the surplus credit points can be transferred to other jurisdictions or can be pooled through subregional forums to offset impacts at I-5/Osborne Street, I-5 south of SR-14 and/or other locations as determined by Los Angeles County in cooperation with other local jurisdictions.

Table 4-9

CMP PROJECT CREDITS

Project	Unit		Credit Value		Subtotal
RESIDENTIAL MIXED USE DEVELOPMENT					
Dwelling Units	4,493	x 1.5 (per du)	=		6,740
Retail Uses	991	x 7.3 (per GSF)	=		7,234
Non-Retail Uses	2,707	x 3.2 (per GSF)	=		8,660
BICYCLE PATH OR LANE					
Miles	14.2	x 700 (per mile)	=		9,940
GENERAL USE HIGHWAY LANE ON CMP ARTERIAL					
SR-126 (Widen to 6-lane) 2 new lanes - County line to Commerce Center Drive	4.8 miles (2lanes)	x	11,500	=	110,400
GENERAL USE HIGHWAY LANE (NON-CMP ARTERIAL)					
Magic Mountain Parkway New 4-lane arterial - Project Boundary to Potrero Canyon	2.5(4)	x	2,900	=	29,000
Long Canyon Road New 4-lane arterial - SR-126 to Potrero Canyon	1.8(4)	x	2,900	=	20,880
Potrero Canyon Road New 4-lane arterial - Project Boundary to SR-126	4.3(4)	x	2,900	=	49,880
Commerce Center Drive New 6-lane arterial - SR-126 to Magic Mountain Parkway	1.4(6)	x	2,900	=	24,360
Franklin Avenue New 4-lane arterial - SR-126 to Long Canyon	1.2(4)	x	2,900	=	13,920
GRADE SEPARATION ON CMP NETWORK					
SR-126 at Long Canyon			5,750	=	5,750
SR-126 at Franklin			5,750	=	5,750
FREEWAY ON/OFF RAMP ADDITION OR MODIFICATION					
SR-126 WB Off at Franklin			1,150	=	1,150
SR-126 WB On at Franklin			1,150	=	1,150
SR-126 EB Off at Franklin			1,150	=	1,150
SR-126 EB On at Franklin			1,150	=	1,150
SR-126 WB Off at Long Canyon			1,150	=	1,150
SR-126 WB On at Long Canyon			1,150	=	1,150
SR-126 EB Off at Long Canyon			1,150	=	1,150
SR-126 EB On at Long Canyon			1,150	=	1,150

(Continued)

Table 4-9 (cont)
CMP PROJECT CREDITS

Project	Unit		Credit Value (Project Share %)		Subtotal
OFF-SITE IMPROVEMENTS					
GENERAL USE HIGHWAY LANE					
(NON-CMP ARTERIAL)					
Commerce Ctr Dr n/o SR-126	.5 miles (2 lanes)	x	2,900 (100%)	=	2,900
Valencia e/o Pico Cyn	.5 (2)	x	2,900 (100%)	=	2,900
Valencia e/o Poe	1 (2)	x	2,900 (100%)	=	5,800
Valencia w/o The Old Rd	1 (2)	x	2,900 (100%)	=	5,800
Magic Mtn w/o The Old Rd	1 (2)	x	2,900 (59%)	=	3,422
The Old Rd s/o Magic Mtn	1.1 (2)	x	2,900 (100%)	=	6,380
McBean n/o Magic Mtn	.64 (2)	x	2,900 (25%)	=	928
Newhall Ranch e/o I-5	.10 (2)	x	2,900 (100%)	=	580
Newhall Ranch w/o Rye Cyn	1.60 (2)	x	2,900 (100%)	=	9,280
Newhall Ranch e/o Dickason	.40 (2)	x	2,900 (100%)	=	2,320
Newhall Ranch e/o McBean	.64 (2)	x	2,900 (100%)	=	3,712
Copper Hill e/o Newhall Ranch	.64 (2)	x	2,900 (30%)	=	1,114
Valencia e/o McBean	.73 (2)	x	2,900 (100%)	=	4,234
Valencia n/o Magic Mtn	.68 (2)	x	2,900 (10%)	=	394
Via Princessa e/o Magic Mtn	.75 (2)	x	2,900 (100%)	=	4,350
Newhall Ranch w/o Bouquet	.64 (2)	x	2,900 (100%)	=	3,712
Newhall Ranch e/o Santa Clarita	.75 (2)	x	2,900 (100%)	=	4,350
Copper Hill w/o McBean	.25 (2)	x	2,900 (100%)	=	1,450
Subtotal Deficiency Plan Credit Points					= 365,340
Total Current Congestion Mitigation Goal (Debit Points)					= (186,522)
Surplus Credit Points					178,818

The project's buildout land uses were shown with the ultimate preliminary capital improvement program for the project to emphasize that the project is providing a direct benefit and a surplus of capacity to the regional transportation system. This debit/credit calculation was provided for informational purposes since jurisdictions actually track new development through building permit activity that occurs at the tract map level, just as the project will be built in phases and the roadway improvements will be evaluated according to the amount of development proposed.

It can be anticipated that the land use strategies detailed in the Specific Plan will be implemented at the tract map level and will provide a substantial amount of additional credit points. Likewise, the Specific Plan promotes the use of alternative transportation modes and transit opportunities and is subject to the County's Transportation Demand Ordinance.

Transit Impact Analysis

The purpose of the CMP transit analysis is:

"to make the most effective use of transit services as an alternative to the automobile, thereby alleviating congestion on the CMP highway system and improving countywide mobility".

The CMP has a transit monitoring network which consists of bus and rail routes that are within the corridors of the Congested Corridor Progress Report and provide service parallel to the CMP highway system for five miles or greater.

The required components of the Transit Impact review process include evidence that transit operators received the Notice of Preparation, identification of existing transit services near the project, estimation of the number of project trips assigned to transit, development of programs that will encourage public transit use, and an analysis of project impacts on transit service.

Appendix D contains evidence that affected transit operators received the Notice of Preparation.

The CMP requires that existing transit service in the project area be summarized according to a quarter-mile radius for fixed-route bus service and a two mile radius for express bus and rail service. Existing fixed-route bus service within a quarter-mile of the project includes Route 20 of Santa Clarita Transit. Route 20 currently is within the quarter-mile radius of the project along SR-126 (west of Commerce Center Drive to Chiquito Canyon Road) and along Chiquito Canyon Road (north of SR-126 and s/o Del Valle Road). There is no express bus service or rail service located within the two-mile radius of the project. Route 20 is not listed on the CMP transit network, but will still be impacted by the project. The metrolink rail station located on Soledad Canyon Road is approximately three and one-half miles away from the closest project boundary. Express bus service that runs from Santa Clarita to Los Angeles via McBean Parkway and Orchard Village Road/Valley Street is also located approximately three miles from the closest project boundary. Although these services are not located within the radius specified by MTA, it is probable that the residents and the employee population of the project would still use these services to some degree and have an impact on them.

Project impacts on the transit system are analyzed here using daily trips, consistent with the long-range impact analysis methodology used throughout this report. The Newhall Ranch project generates 334,000 average daily traffic (ADT) vehicle trips. The conversion to person trips is accomplished by using the MTA guidelines (multiplying the ADT by an occupancy factor of 1.4) which results in 467,600 ADT person trips. The MTA guidelines specify that approximately 3.5 percent of person trips will become trips assigned to transit, which gives 16,366 ADT transit trips. Using a representative peak hour factor of 10 percent, this would give around 1600 peak hour transit trips for each peak hour to be potentially generated by the Newhall Ranch project.

The transit demand created by the Newhall Ranch project will occur in increments as the project develops. Actual transit impacts to transit services will be evaluated at the tentative tract map level as development occurs within the project. At this detailed level, the site plan can implement the transit friendly design standards contained in the Specific Plan and transit operators can assess the capacity and demand of transit services. The ultimate transit service network can be implemented through the MTA 20 year plan as transit demand is demonstrated and funding opportunities exist. As outlined in the MTA 20 year plan, funding sources for transit projects are available at the local, state and federal levels.

SUMMARY OF IMPACTS

Table 4-10 summarizes the impacts of the project on the surrounding roadway system using the City Circulation Element Network. Table 4-11 provides the same summary for the Alternative Network. These tables combine the results from the various impact sections in this chapter to show where off-site project mitigation is needed. The next chapter discusses a comprehensive transportation improvement program designed to provide this mitigation.

Table 4-10

PROJECT IMPACT SUMMARY - CITY CIRCULATION ELEMENT NETWORK

LOCATION	IMPACT TYPE	NUMBER OF LANES REQUIRED		COMMENTS
		WITHOUT PROJECT	WITH PROJECT	
I. ARTERIAL LINKS				
12. Commerce Ctr Dr n/o SR-126	PL	4	6	Project causes need for additional lanes
15. Valencia e/o Pico Cyn	PL	2	4	Project causes need for additional lanes
17. Valencia e/o Poe	PL	2	4	Project causes need for additional lanes
18. Valencia w/o The Old Road	PL	4	6	Project causes need for additional lanes
19. Valencia e/o The Old Road	PA	6	6A	Project causes need for augmentation
22. Magic Mtn w/o The Old Road	P	6A	8A	Project causes need for additional lanes and augmentation
28. The Old Road n/o Magic Mtn	PL	4	6	Project causes need for additional lanes
30. The Old Road s/o Valencia	PL	4	6	Project causes need for additional lanes
36. McBean e/o I-5	PA	6	6A	Project causes need for augmentation
50. Newhall Ranch Road e/o I-5	PL	6	8	Project causes need for additional lanes
51. Newhall Ranch Road w/o Rye Cyn	PL	6	8	Project causes need for additional lanes
52. Newhall Ranch Road e/o Rye Cyn	PL	6	8	Project causes need for additional lanes
53. Newhall Ranch Road e/o Dickason	P	8A	8A+	Project adds need for additional augmentation
54. Newhall Ranch Road e/o McBean	PA	8	8A	Project causes need for augmentation
65. Copper Hill e/o Newhall Ranch	PA	6A	6A	Project adds to need for augmentation
79. Bouquet s/o Newhall Ranch	PA	8A	8A	Project adds to need for augmentation
88. Magic Mtn e/o I-5	PA	8	8A	Project causes need for augmentation
99. Valencia e/o McBean	PA	6	6A	Project causes need for augmentation
100. Valencia n/o Magic Mtn	PA	6A	6A	Project adds to need for augmentation
130. Newhall Ranch Road e/o Santa Clarita	PA	6	6A	Project causes need for augmentation
II. FREEWAY INTERCHANGE RAMPS				
127. I-5 NB Off at SR-126	P	1	2	Project causes need for additional lanes

* Impact types are as follows:

P - Project causes V/C to exceed 1.00 and needs to mitigate beyond designated lanes

PA - Project causes or adds to the need for augmentation

PL - Project causes need for additional lanes compared to no project conditions

Table 4-11

PROJECT IMPACT SUMMARY - NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK

LOCATION	IMPACT TYPE	NUMBER OF LANES REQUIRED		COMMENTS
		WITHOUT PROJECT	WITH PROJECT	
I. ARTERIAL LINKS				
12. Commerce Ctr Dr n/o SR-126	PL	4	6	Project causes need for additional lanes
15. Valencia e/o Pico Cyn	PL	2	4	Project causes need for additional lanes
17. Valencia e/o Poe	PL	2	4	Project causes need for additional lanes
18. Valencia w/o The Old Road	PL	4	6	Project causes need for additional lanes
22. Magic Mtn w/o The Old Road	P	6A	8A	Project causes need for additional lanes and augmentation
29. The Old Road s/o Magic Mtn	PL	4	6	Project causes need for additional lanes
40. McBean n/o Magic Mtn	PA	8A	8A	Project adds to need for augmentation
50. Newhall Ranch Road e/o I-5	PL	6	8	Project causes need for additional lanes
51. Newhall Ranch Road w/o Rye Cyn	PL	6	8	Project causes need for additional lanes
53. Newhall Ranch Road e/o Dickason	PA	8	8A	Project causes need for augmentation
54. Newhall Ranch Road e/o McBean	PA	8	8A	Project causes need for augmentation
65. Copper Hill e/o Newhall Ranch	PA	6A	6A	Project adds to need for augmentation
99. Valencia e/o McBean	PA	6	6A	Project causes need for augmentation
100. Valencia n/o Magic Mtn	PA	6A	6A	Project adds to need for augmentation
107. Via Princessa e/o Magic Mtn	PA	6	6A	Project causes need for augmentation
128. Newhall Ranch w/o Bouquet	PA	8	8A	Project causes need for augmentation
130. Newhall Ranch Road e/o Santa Clarita	PA	6	6A	Project causes need for augmentation
194. Copper Hill w/o McBean	PL	4	6	Project causes need for additional lanes
II. FREEWAY INTERCHANGE RAMPS				
127. I-5 NB Off at SR-126	P	1	2	Project causes need for additional lane

* Impact types are as follows:

P - Project causes V/C to exceed 1.00 and needs to mitigate beyond designated lanes

PA - Project causes or adds to the need for augmentation

PL - Project causes need for additional lanes compared to no project conditions

Chapter 5.0

TRANSPORTATION IMPROVEMENTS

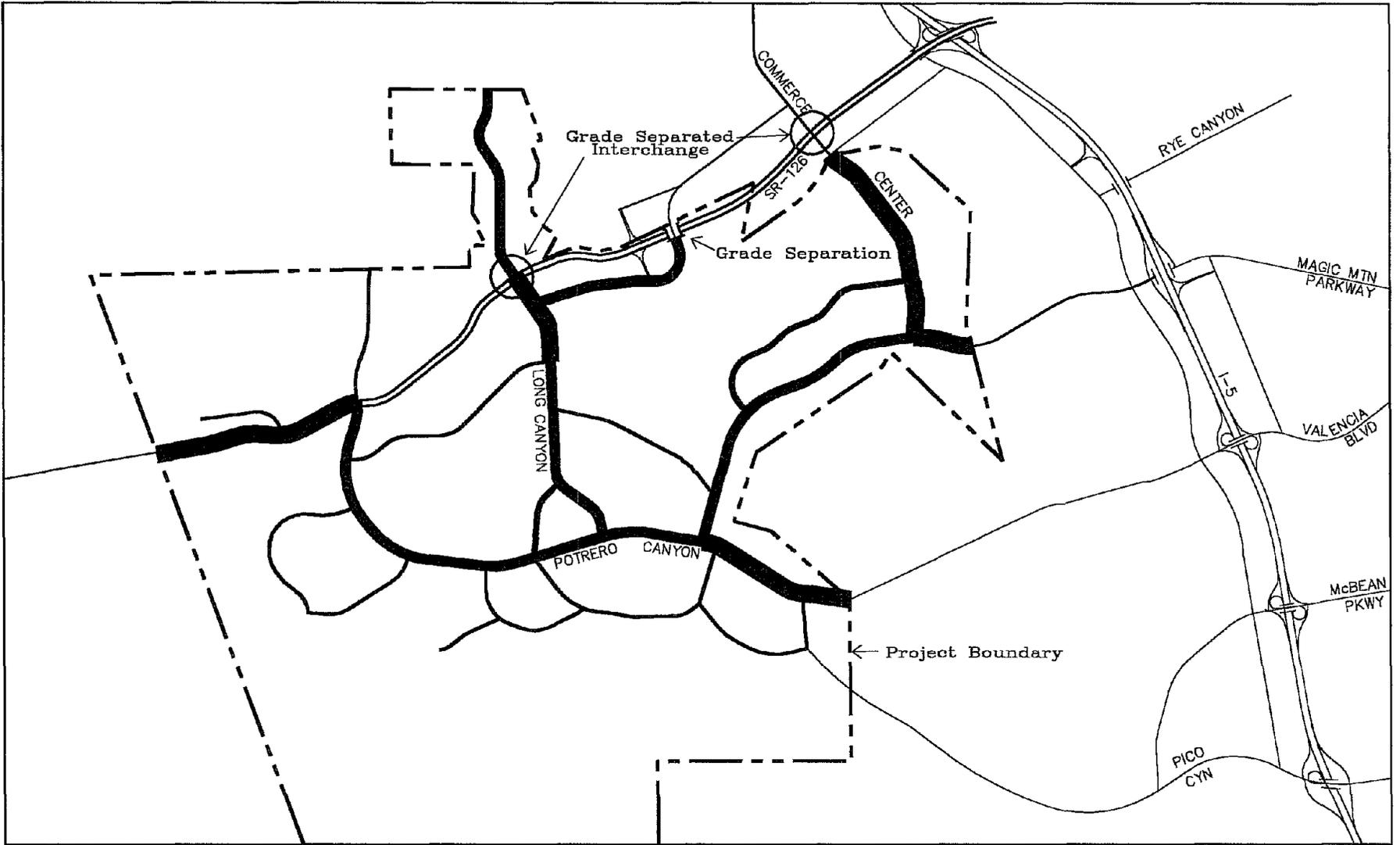
This chapter summarizes the transportation improvements designed to serve project traffic and to mitigate the impacts of the proposed project. On-site circulation is first discussed, followed by a proposed program of off-site improvements.

ON-SITE CIRCULATION SYSTEM

The proposed on-site circulation system was shown diagrammatically as part of the project description in Chapter 3.0. To serve future traffic demand, that system has different roadway types throughout the project area. These are shown in Figure 5-1. Roadway cross-sections for each roadway type can be found in the Newhall Ranch Specific Plan (see Reference 11 in Chapter 1.0).

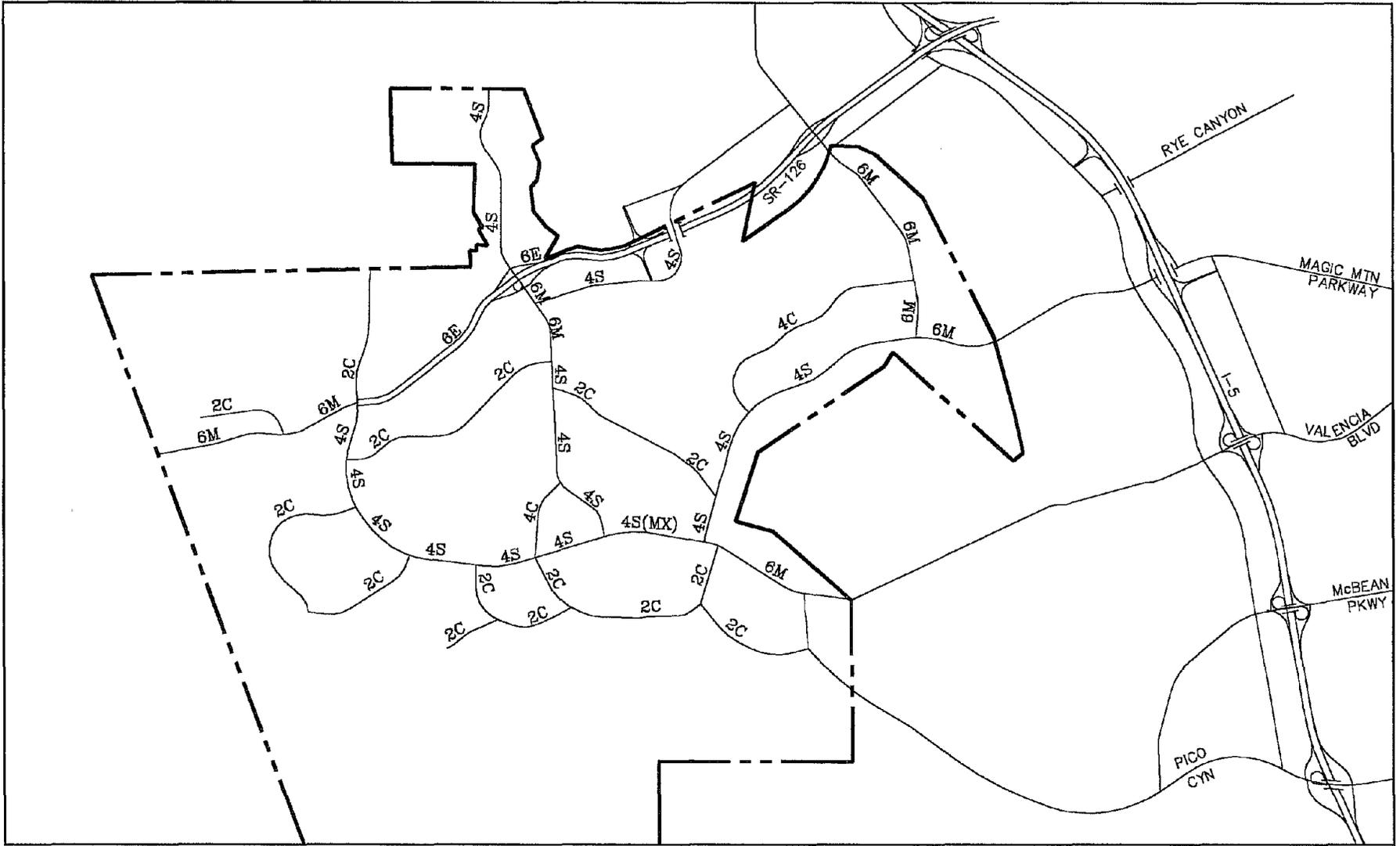
Figure 5-2 shows the midblock lanes for the on-site circulation system. Certain local collector roadways have been shown here as potentially requiring four-lanes rather than the two lanes more typically provided for a collector. These capacity needs are based on the distribution of land uses in the Specific Plan, and will undergo further verification when individual tract maps are prepared.

Special design considerations are proposed for the intersection of Commerce Center Drive and Magic Mountain Parkway to accommodate the project traffic volumes. Figure 5-3 shows a design concept for this location. For the southbound left turn, Commerce Center Drive and the east leg of Magic Mountain Parkway would act as a continuous roadway, rather than be configured as a triple left turn. This "turning roadway" concept maximizes the capacity for this high volume turn movement.



LEGEND	
	Expressway
	Major Highway (6 Lanes)
	Secondary Highway (4 Lanes)
	Local Collector (2-4 Lanes)
	Future Interchange

Figure 5-1
PROJECT ROADWAY SYSTEM



LEGEND	
6E	6 Lane Expressway
6M	6 Lane Major
4S(MX)	4 Lane Secondary (Max)
4S	4 Lane Secondary
2-4C	2 or 4 Lane Collector

Figure 5-2
MIDBLOCK LANES
-PROJECT AREA

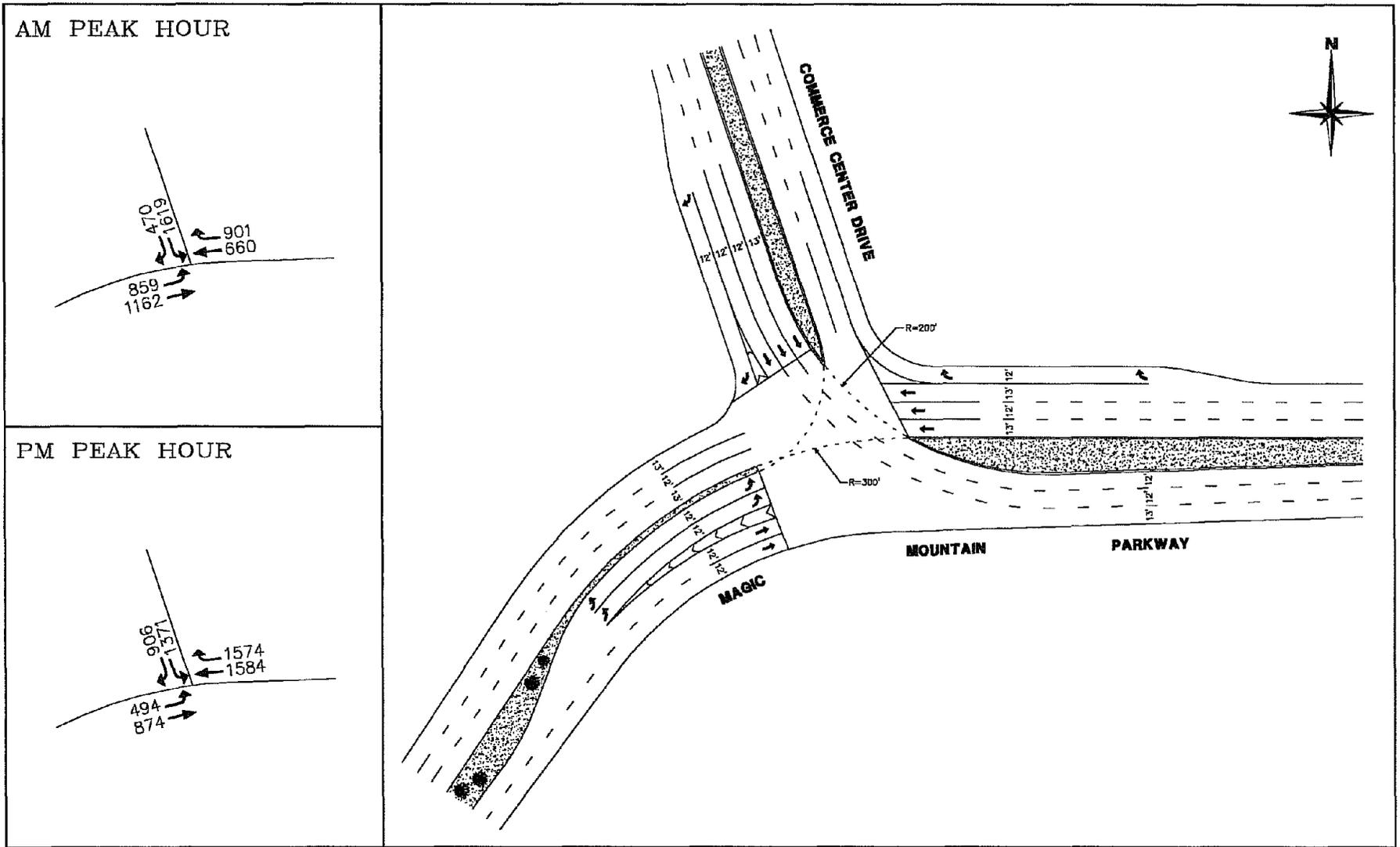


Figure 5-3
MAGIC MTN PKWY/COMMERCE CTR DR
CONCEPTUAL DESIGN

Potrero Canyon Road between Long Canyon and Magic Mountain Parkway also has unique lane configurations that are necessary to accommodate project volumes. As shown in Figure 5-4, a third westbound thru-lane is necessary for the intersection of Magic Mountain Parkway/Potrero Canyon. This lane could either merge into the two adjacent westbound lanes, or be a continuous auxiliary lane, ending as a free right-turn at Long Canyon Road. Deployment of a westbound auxiliary lane would be an augmentation of the secondary roadway section described earlier.

Signalization

The need for signalization was evaluated for each significant on-site intersection within the project. Figure 5-5 shows the locations where signal warrants were analyzed, together with the long-range ADT volumes as presented earlier in this chapter.

Traffic signal warrants as adopted by the Federal Highway Administration and Caltrans are used to determine the need for signalization. Figure 5-6 shows the ADT signal warrant methodology. In applying this warrant, the volumes of both the major and minor street must exceed those shown in the Caltrans Manual. Determining the major street signal warrant volume involves calculating the number of vehicles approaching the intersection on both major street legs. The minor street signal warrant volume is the number of daily vehicles approaching the intersection on only the highest volume leg. Consistent with the Caltrans Manual, two tests are conducted to determine the need for signalization. The first is for minimum total vehicular traffic, and the second for interruption of a continuous traffic stream. Typically, a signal is installed if either warrant is satisfied or if 80 percent of both warrants are satisfied. Table 5-1 shows the results of the signal warrant analysis.

Based on the forecast volumes, 15 out of the 16 locations meet the warrant for signalization. These results are given here for long-range planning purposes. The actual need and precise timing for signalization would be reassessed at the time that actual tract maps are prepared.

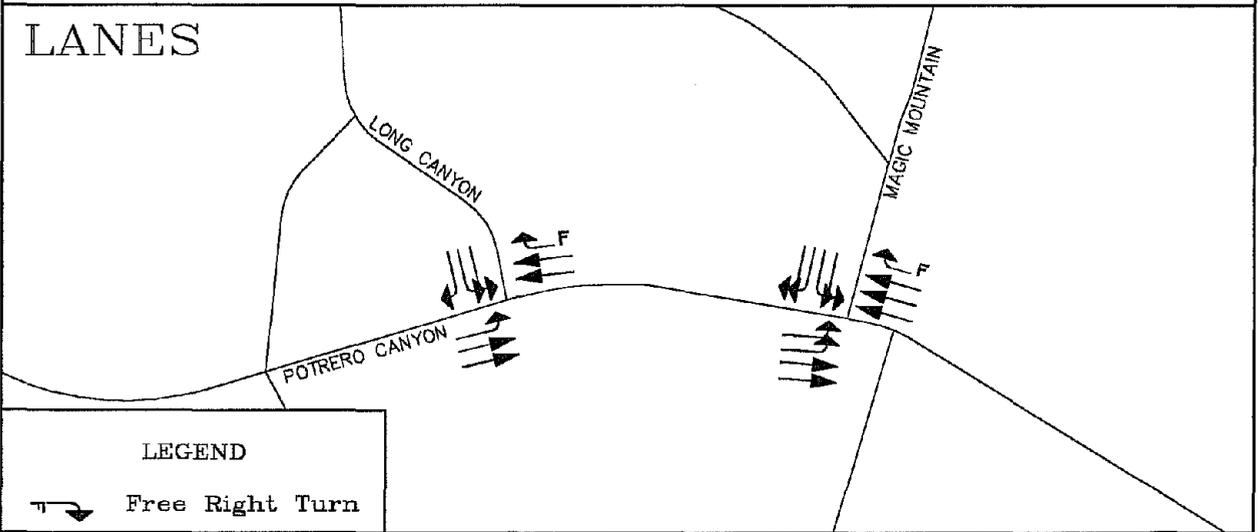
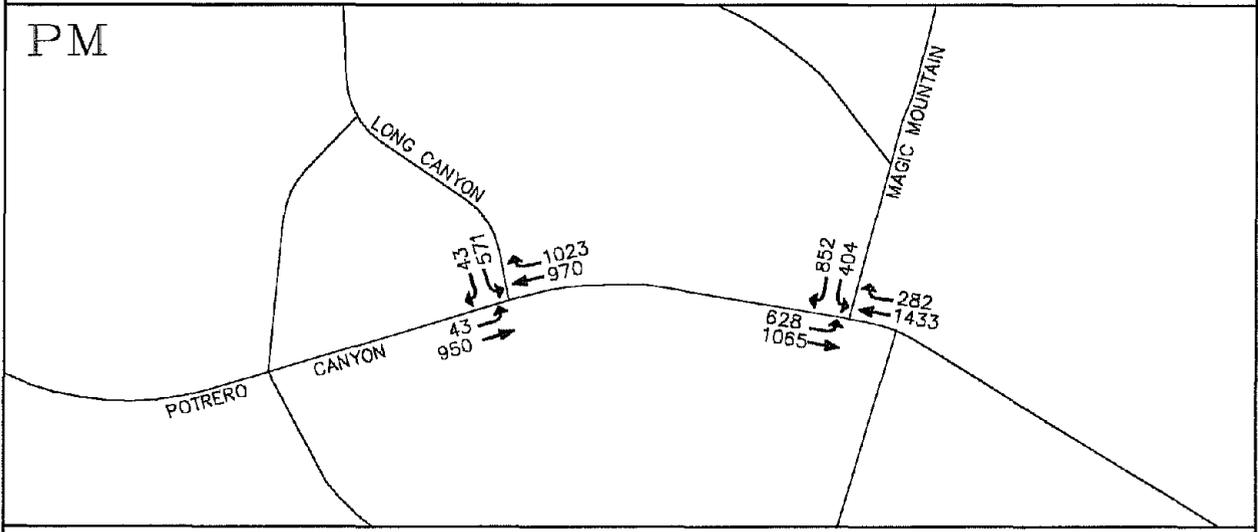
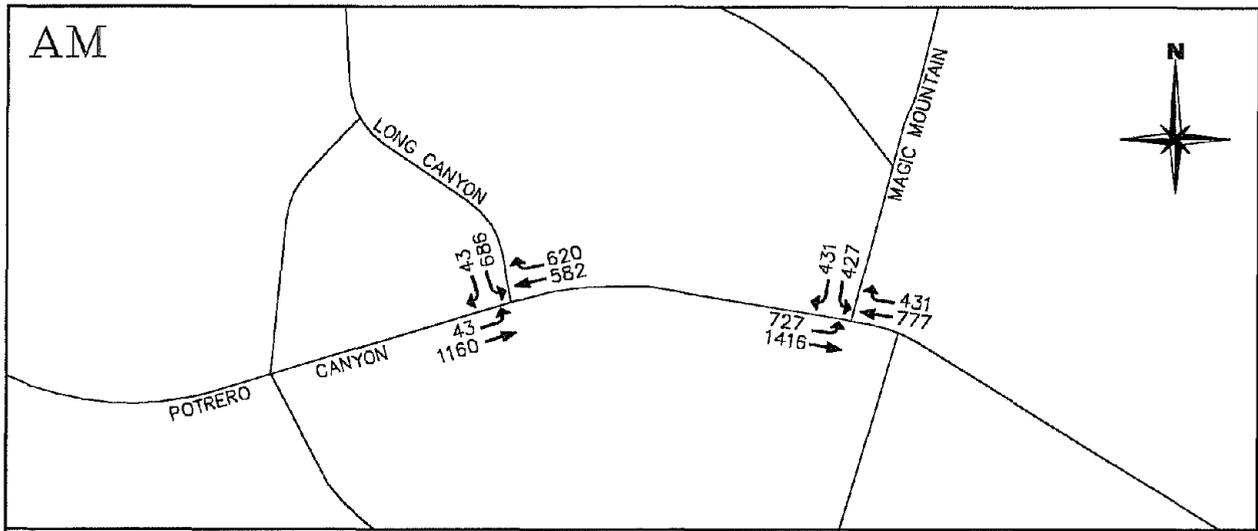
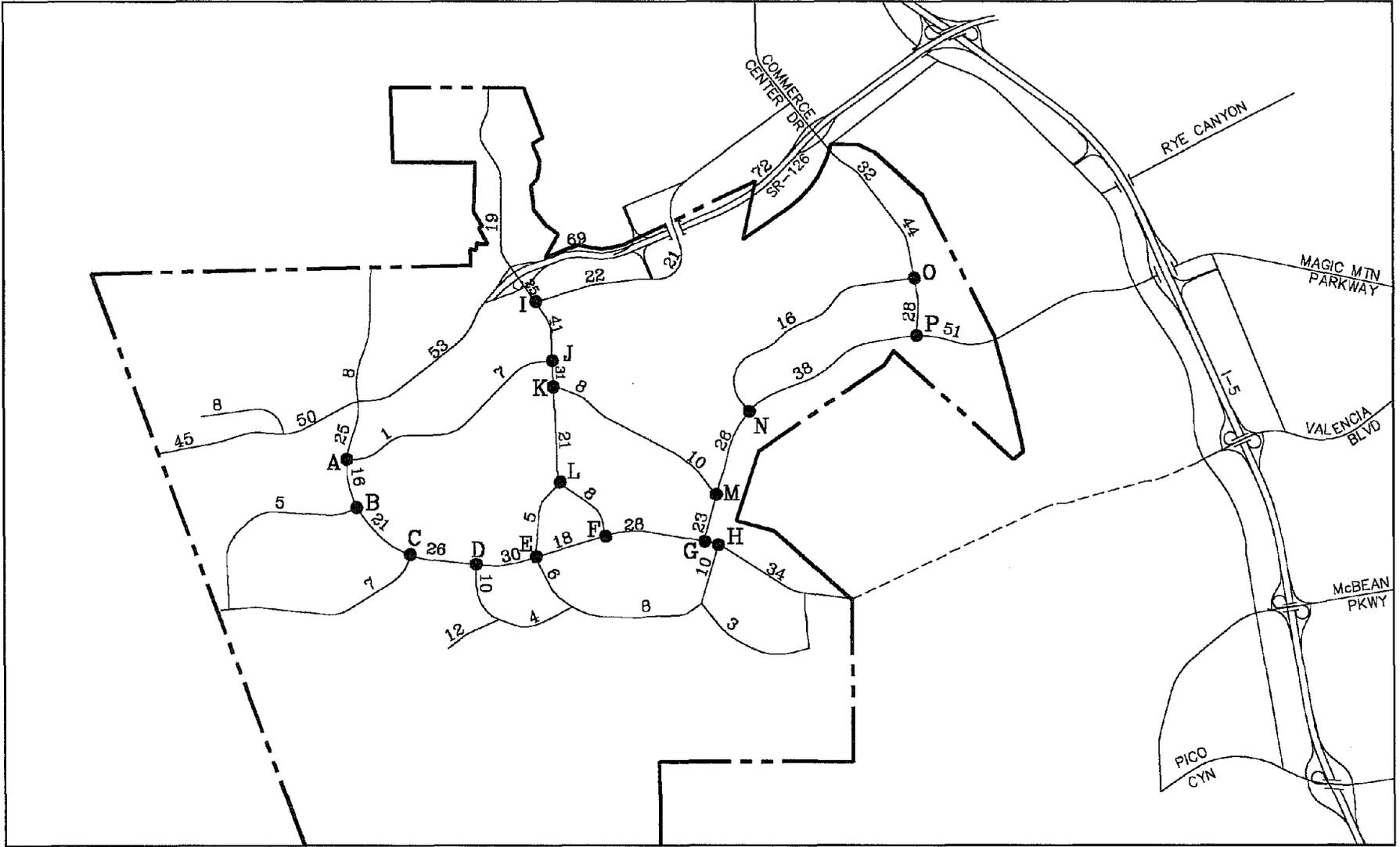


Figure 5-4
 VOLUMES AND LANE CONFIGURATIONS
 FOR POTRERO CANYON ROAD AT MAGIC
 MTN PKWY AND LONG CANYON ROAD



LEGEND
● INTERSECTION LOCATION
XX ADT VOLUME (000s)

Figure 5-5
SIGNAL WARRANT LOCATIONS

Table 5-1

**NEWHALL RANCH ON-SITE
ADT SIGNAL WARRANT SUMMARY**

<u>INTERSECTION</u>		<u>ESTIMATED ADT</u>
1. Location A		
Major Approach	NB	8,000
	SB	12,500
	Total	20,500
Minor Approach	WB	500
Warrant 1 Satisfied?	9,600/2,400	No
Warrant 2 Satisfied?	14,400/1,200	No
2. Location B		
Major Approach	NB	10,500
	SB	8,000
	Total	18,500
Minor Approach	EB	2,500
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
3. Location C		
Major Approach	EB	10,500
	WB	13,000
	Total	23,500
Minor Approach	NB	3,500
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
4. Location D		
Major Approach	EB	13,000
	WB	15,000
	Total	28,000
Minor Approach	NB	5,000
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
5. Location E		
Major Approach	EB	15,000
	WB	9,000
	Total	24,000
Minor Approach	SB	2,500
Warrant 1 Satisfied?	9,600/3,200	No
Warrant 2 Satisfied?	14,400/1,600	Yes
6. Location F		
Major Approach	EB	9,000
	WB	14,000
	Total	23,000
Minor Approach	SB	4,000
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes

(Continued)

Table 5-1 (cont)
 NEWHALL RANCH ON-SITE
 ADT SIGNAL WARRANT SUMMARY

<u>INTERSECTION</u>		<u>ESTIMATED ADT</u>
7. Location G		
Major Approach	EB	14,000
	WB	16,000
	Total	30,000
Minor Approach	SB	11,500
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
8. Location H		
Major Approach	EB	16,000
	WB	17,000
	Total	33,000
Minor Approach	NB	5,000
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
9. Location I		
Major Approach	NB	20,500
	SB	12,500
	Total	33,000
Minor Approach	WB	11,000
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
10. Location J		
Major Approach	NB	15,500
	SB	20,500
	Total	36,000
Minor Approach	EB	3,500
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
11. Location K		
Major Approach	NB	10,500
	SB	15,500
	Total	26,000
Minor Approach	WB	4,000
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
12. Location L		
Major Approach	NB	4,000
	SB	10,500
	Total	14,500
Minor Approach	EB	2,500
Warrant 1 Satisfied?	9,600/3,200	No
Warrant 2 Satisfied?	14,400/1,600	Yes

(Continued)

Table 5-1 (cont)
 NEWHALL RANCH ON-SITE
 ADT SIGNAL WARRANT SUMMARY

<u>INTERSECTION</u>		<u>ESTIMATED ADT</u>
13. Location M		
Major Approach	NB	11,500
	SB	13,000
	Total	24,500
Minor Approach	EB	5,000
Warrant 1 Satisfied?	9,600/2,400	Yes
Warrant 2 Satisfied?	14,400/1,200	Yes
14. Location N		
Major Approach	NB	13,000
	SB	19,000
	Total	32,000
Minor Approach	EB	8,000
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
15. Location O		
Major Approach	NB	14,000
	SB	22,000
	Total	36,000
Minor Approach	EB	8,000
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes
16. Location P		
Major Approach	EB	19,000
	WB	25,500
	Total	44,500
Minor Approach	SB	14,000
Warrant 1 Satisfied?	9,600/3,200	Yes
Warrant 2 Satisfied?	14,400/1,600	Yes

CITY AND COUNTY ARTERIAL HIGHWAYS

The project will cause higher volumes on a number of arterial roadways in the study area. The extent to which the increase in traffic can be considered a project impact depends on the future capacities that will be provided on these arterials.

Traffic analysis work by the City (e.g., Reference 7 in Chapter 1.0) has indicated that providing replacement capacity for the previously planned SR-126 expressway will require augmenting several major arterial highways to a capacity beyond that of a standard six-lane highway. The traffic data presented in this report supports the need for arterial augmentation, and has used the maximum capacity that can be achieved by augmentation as the basis for identifying future V/C ratios. In reality, arterial capacity augmentation involves a variety of strategies ranging from simple intersection enhancement to full roadway widening. A typical menu of augmentation actions includes but is not limited to the following:

- Intersection Improvements
 - Added left-turn lane
 - Separate right-turn lane
 - Free right-turn lane
 - Additional thru-lane
- Roadway Improvements
 - Deceleration lanes at driveways
 - Acceleration lanes at driveways
 - Auxiliary lanes for all or part of a roadway section
 - Additional lanes (e.g., eight lanes versus six lanes)
- Efficiency Improvements
 - Traffic signal optimization
 - Signal progression
 - Areawide signal control
 - Advanced areawide traffic management

Intersection improvements involve adding lanes as necessary to serve high demand movements through the intersection. Roadway improvements typically involve auxiliary lanes between intersections. Carrying additional lanes through an intersection would provide substantial capacity

enhancement, and represents a maximum treatment for arterial augmentation. Efficiency improvements maximize the use of the physical roadway system.

The actual capacity enhancements to be deployed at any location will be based on future traffic demand. Hence, the maximum capacity assumption used in the impact analysis does not fully indicate the degree to which the project adds to the cost of future improvements. Additional traffic due to the project will typically create the need for capacity augmentation beyond that which might be implemented without the project. For this reason, where the project adds traffic to locations that are candidates for augmentation, that additional traffic is considered a project impact. The proposed project mitigation is to participate in capacity enhancements on a fair share basis.

Examples of how a fair share formula could be derived for individual sections of roadways can be seen in Table 5-2 for the City Circulation Element and Table 5-3 for the Alternative Network. This shows the roadways in the City and County that need capacity increases beyond a standard Circulation Element roadway capacity, the additional capacity needed, and the project share of that additional capacity. It is intended that this share percentage define the project obligation for participating in the implementation of appropriate capacity enhancements in each case.

SR-126 IMPROVEMENTS

The section of SR-126 between the east end of Fillmore in Ventura County and its connection with I-5 just east of the project is currently two-lanes, and is programmed to be upgraded to four-lanes by Caltrans. This upgrade is expected to be constructed by 2000, before Newhall Ranch is expected to begin developing. To serve the additional traffic on this facility due to the project, further upgrading of the section of SR-126 between the Ventura county line and I-5 is proposed. Figure 5-7 shows this section of SR-126 with the proposed improvements, and key features of these improvements are as follows:

1. Upgrading to a six-lane expressway from San Martinez Grande Road to Commerce Center Drive and to an eight lane expressway from Commerce Center Drive to I-5
2. Grade separated interchanges at Chiquito Canyon and Franklin Avenue/Wolcott (a grade separated interchange is already planned for Commerce Center Drive)

Table 5-2

**PROJECT PARTICIPATION IN
ARTERIAL ROADWAY IMPROVEMENTS
(City Circulation Element Network)**

LOCATION*	NON-PROJ CAPACITY	ADT WITHOUT PROJECT	ADT WITH PROJECT	PROJECT DIFF. ¹	ADDITIONAL CAPACITY REQUIRED ²	PROJECT SHARE % ³
I. COUNTY						
12. Commerce Ctr n/o SR-126	32,000	30,000	34,000	4,000	22,000	100 ⁴
15. Valencia e/o Pico Cyn	16,000	5,000	24,000	19,000	16,000	100 ⁴
17. Valencia e/o Poe	16,000	5,000	23,000	18,000	16,000	100 ⁴
18. Valencia w/o The Old Rd	32,000	19,000	44,000	25,000	22,000	100 ⁴
19. Valencia e/o The Old Rd	54,000	40,000	57,000	17,000	3,000	100
22. Magic Mtn w/o The Old Rd	54,000	65,000	81,000	16,000	27,000	59
28. The Old Rd n/o Magic Mtn	32,000	30,000	35,000	5,000	22,000	100 ⁴
30. The Old Rd s/o Valencia	32,000	28,000	33,000	5,000	22,000	100 ⁴
65. Copper Hill e/o Newhall Ranch	54,000	59,000	63,000	4,000	9,000	44
II. COUNTY/CITY						
54. Newhall Ranch e/o McBean	72,000	72,000	75,000	3,000	3,000	100
III. CITY						
36. McBean e/o I-5	54,000	52,000	55,000	3,000	1,000	100
50. Newhall Ranch e/o I-5	54,000	47,000	66,000	19,000	18,000	100 ⁴
51. Newhall Ranch w/o Rye	54,000	50,000	67,000	17,000	18,000	100 ⁴
52. Newhall Ranch e/o Rye	54,000	54,000	63,000	9,000	18,000	100 ⁴
53. Newhall Ranch e/o Dickason	72,000	80,000	88,000	8,000	16,000	50
79. Bouquet s/o Newhall Ranch	72,000	73,000	74,000	1,000	2,000	50
88. Magic Mtn e/o I-5	72,000	71,000	76,000	5,000	4,000	100
99. Valencia e/o McBean	54,000	53,000	56,000	3,000	2,000	100
100. Valencia n/o Magic Mtn	54,000	59,000	60,000	1,000	6,000	17
130. Newhall Ranch e/o Santa Clarita Pkwy	54,000	54,000	56,000	2,000	2,000	100

AUG - augmented

Note: The ADT volumes used here were taken from the City Circulation Element Network.

* A link location map can be found in Appendix C

¹ ADT with project minus ADT without project

² When augmentation is required, additional capacity is the ADT with project minus non-project capacity. When additional lanes are required, additional capacity is the future lane capacity minus non-project capacity.

³ Project difference divided by additional capacity required

⁴ Additional lanes are required due exclusively to the project

Table 5-3

**PROJECT PARTICIPATION IN
ARTERIAL ROADWAY IMPROVEMENTS
(No Avenue Tibbitts Bridge Alternative Network)**

LOCATION*	NON-PROJ CAPACITY	ADT WITHOUT PROJECT	ADT WITH PROJECT	PROJECT DIFF. ¹	ADDITIONAL CAPACITY REQUIRED ²	PROJECT SHARE % ³
I. COUNTY						
12. Commerce Ctr n/o SR-126	32,000	30,000	34,000	4,000	22,000	100 ⁴
15. Valencia e/o Pico Cyn	16,000	5,000	24,000	19,000	16,000	100 ⁴
17. Valencia e/o Poe	16,000	5,000	23,000	18,000	16,000	100 ⁴
18. Valencia w/o The Old Rd	32,000	19,000	44,000	25,000	22,000	100 ⁴
22. Magic Mtn w/o The Old Rd	54,000	64,000	80,000	16,000	27,000	59
29. The Old Rd s/o Magic Mtn	32,000	30,000	36,000	6,000	22,000	100 ⁴
65. Copper Hill e/o Newhall Ranch	54,000	61,000	64,000	3,000	10,000	30
194. Copper Hill w/o McBean	32,000	32,000	33,000	1,000	22,000	100 ⁴
II. COUNTY/CITY						
54. Newhall Ranch e/o McBean	72,000	71,000	75,000	4,000	3,000	100
III. CITY						
40. McBean n/o Magic Mtn	72,000	75,000	76,000	1,000	4,000	25
50. Newhall Ranch e/o I-5	54,000	51,000	67,000	16,000	18,000	100 ⁴
51. Newhall Ranch w/o Rye	54,000	54,000	69,000	15,000	18,000	100 ⁴
53. Newhall Ranch e/o Dickason	72,000	70,000	74,000	4,000	2,000	100
99. Valencia e/o McBean	54,000	54,000	56,000	2,000	2,000	100
100. Valencia n/o Magic Mtn	54,000	63,000	64,000	1,000	10,000	10
107. Via Princessa e/o Magic Mtn	54,000	54,000	55,000	1,000	1,000	100
128. Newhall Ranch w/o Bouquet	72,000	70,000	73,000	3,000	1,000	100
130. Newhall Ranch e/o Santa Clarita Pkwy	54,000	54,000	56,000	2,000	2,000	100

AUG - augmented

Note: The ADT volumes used here were taken from the City Circulation Element Network.

* A link location map can be found in Appendix C

¹ ADT with project minus ADT without project

² When augmentation is required, additional capacity is the ADT with project minus non-project capacity. When additional lanes are required, additional capacity is the future lane capacity minus non-project capacity.

³ Project difference divided by additional capacity required except for when additional lanes are required due exclusively to the project. In those cases, the project share is 100%.

⁴ Additional lanes are required due exclusively to the project

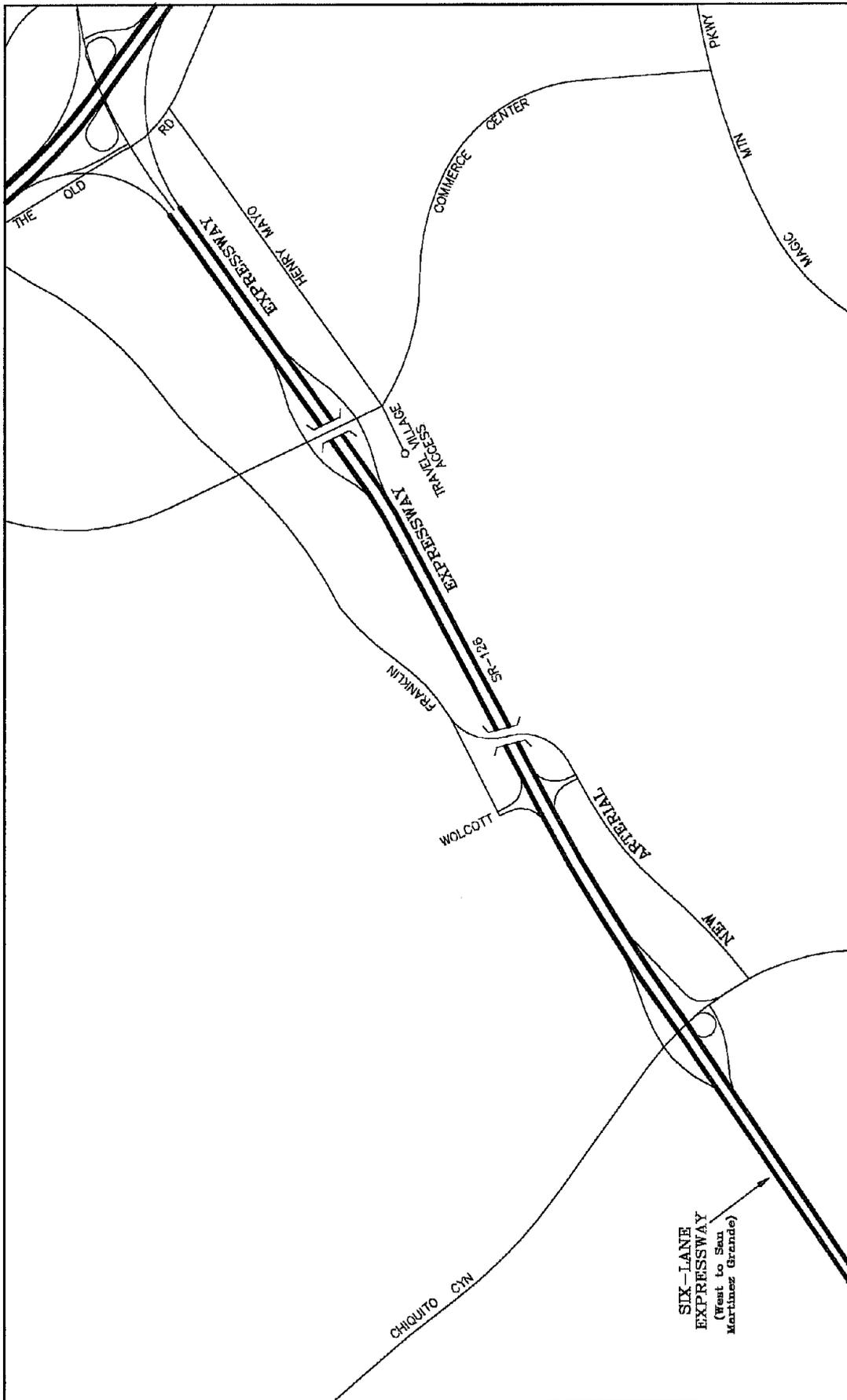


Figure 5-7
 SR-126 ROADWAY IMPROVEMENTS

Under these proposals, the roadway would transition from a four-lane to a six-lane highway between Ventura County line and San Martinez Grande Road. The intersection at San Martinez Grande Road would be an at-grade intersection and SR-126 would become an expressway just east of that intersection to its interchange with I-5. Descriptions of these various improvements follow.

SR-126 in Ventura County

State Route 126 west of the Los Angeles County line is shown on the Ventura County General Plan as a four-lane Arterial Highway and as noted above is programmed in the State Transportation Improvement Plan (STIP) for widening to four-lanes. The widening project for this roadway is currently listed in the Ventura County Congestion Management Program, seven-year Capital Improvement Program. The widening project has received funding and is currently under construction. As mentioned previously, this widening project would be expected to be completed before development is expected to occur on the Newhall Ranch project.

The capacity analysis in Chapter 4.0 showed this section of highway to have adequate capacity with and without the project based on the capacity assumptions given in the Caltrans SR-126 Route Concept Report. Not addressed there is the transition from a rural highway to an urban arterial with signalized intersections in the City of Fillmore. It is likely that improvements beyond the basic four lanes will be required at those intersections. Similarly, access for the community of Piru may require some intersection improvements beyond the basic Caltrans project.

Since the Newhall Ranch project will add to these intersection capacity needs, some participation in the SR-126 intersection improvements on a fair share basis would be an appropriate project mitigation. The improvements would include pavement modification and striping, but would not involve additional right-of-way.

Chiquito Canyon Intersection

This intersection will serve project traffic from development both north and south of SR-126. An analysis of peak hour volumes shows that an at-grade intersection will not have adequate capacity and that a grade-separated interchange will be necessary. The peak hour volumes and V/C results are

illustrated in Figure 5-8, together with a proposed interchange configuration. The half-diamond on the north side and parclove on the south side represents a suitable layout to serve anticipated traffic demands. However, it must be recognized that the final design will be the product of special design studies and may differ from what is shown here (for example, the south side could also be a half-diamond, which would eliminate the loop on-ramp but necessitate a wider bridge).

In the interim, a signalized intersection will be provided at this location. The grade separation will not be needed until some time in the future when much of the west end of Newhall Ranch is developed and other (i.e., non-project) traffic increases have occurred on SR-126. It is also possible that the interchange itself may be phased, with a half-section of the bridge being built first, followed by the full section.

Wolcott/Franklin Avenue

There is currently a signalized intersection at Wolcott Avenue and SR-126. It is anticipated that this will remain for some time into the future, with capacity improvements taking the form of additional lanes on SR-126 itself. The Caltrans project will add two lanes to the existing SR-126 (for a total of four), and an additional two lanes will be needed as part of the full widening project to provide the six expressway lanes.

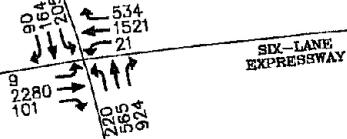
Eventually, a grade separation will need to be constructed at this location. Figure 5-9 shows the long-range with-project traffic volumes and ICUs for an at-grade intersection plus the proposed grade separation. Under this proposal, the existing intersection will revert to on-off ramps, and Franklin Avenue will be extended over SR-126 as an over-crossing, essentially creating a full interchange at this location.

Commerce Center Drive

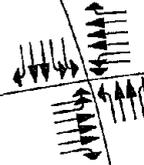
The Commerce Center traffic analysis and EIR identified the need for a future grade separation at this location. While no formal design studies have been carried out by or for Caltrans, preliminary work has suggested that a diamond configuration would provide adequate capacity within the space limitation of this location. This configuration was assumed in the impact analysis, and a

AT-GRADE INTERSECTION

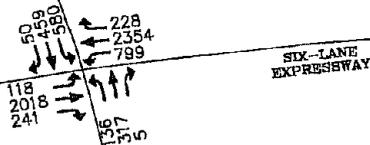
AM PEAK HOUR VOLUMES



LANE CONFIGURATIONS



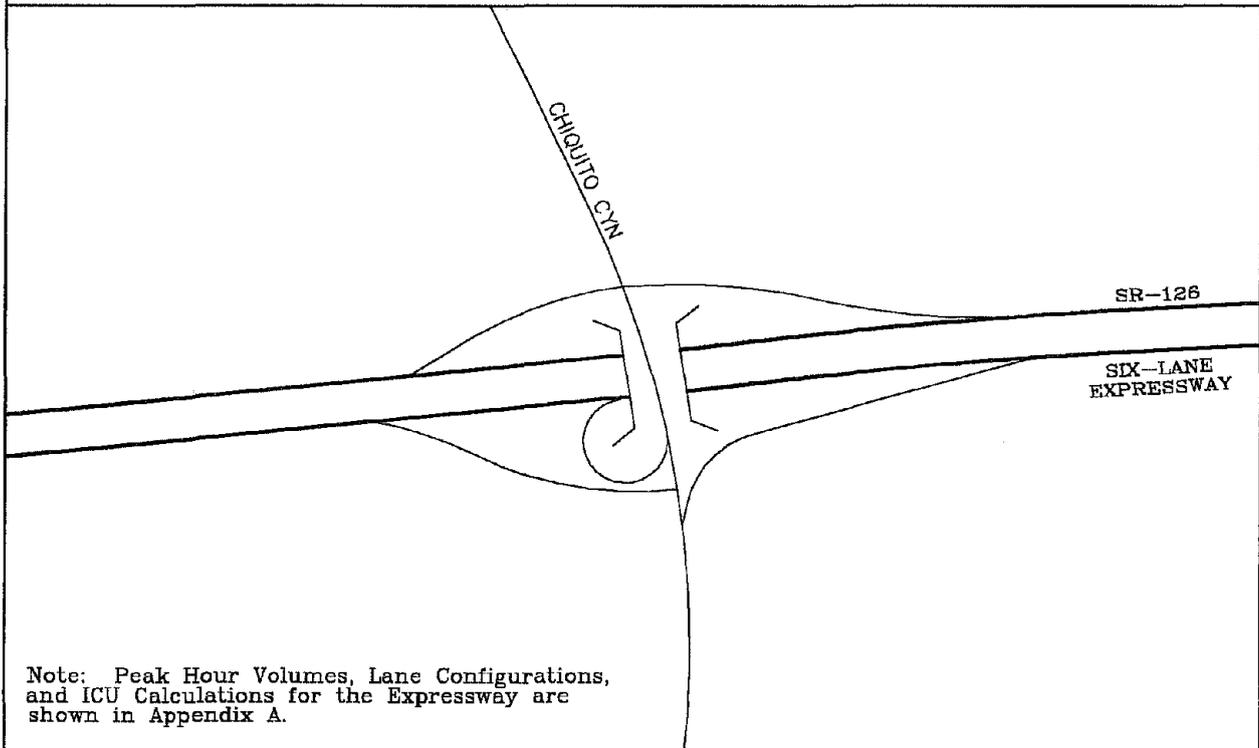
PM PEAK HOUR VOLUMES



ICU CALCULATIONS - AT GRADE INTERSECTION

AM PEAK HOUR .74
PM PEAK HOUR 1.00

GRADE SEPARATED INTERCHANGE

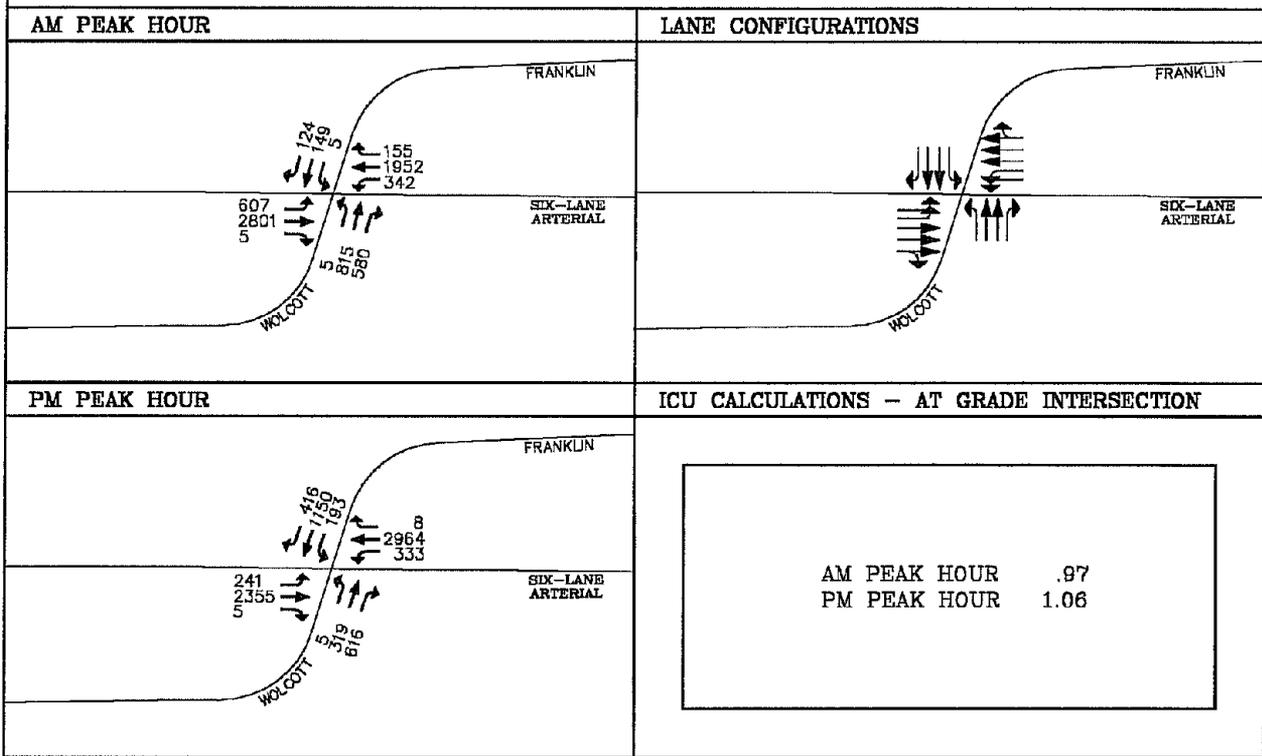


Note: Peak Hour Volumes, Lane Configurations, and ICU Calculations for the Expressway are shown in Appendix A.

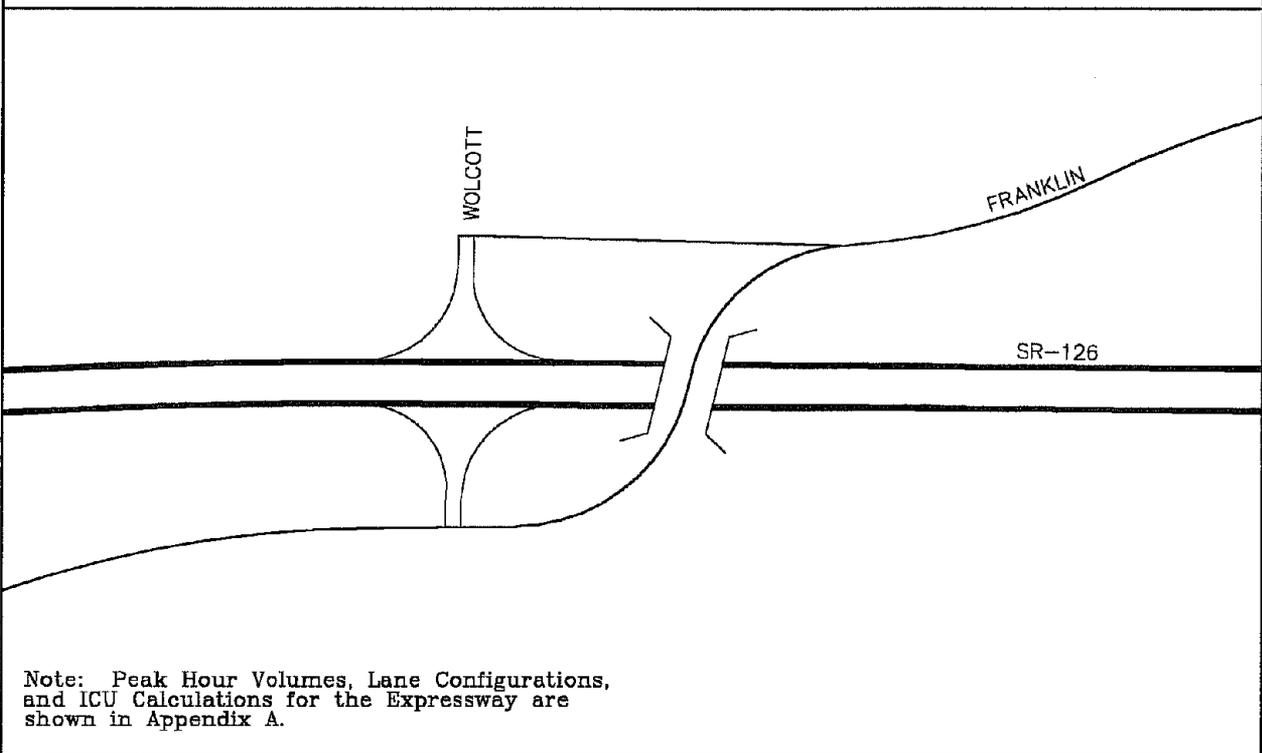
Figure 5-8

SR-126/CHIQUITO CANYON
INTERSECTION VOLUMES & LAYOUT

AT-GRADE INTERSECTION



GRADE SEPARATED INTERCHANGE



Note: Peak Hour Volumes, Lane Configurations, and ICU Calculations for the Expressway are shown in Appendix A.

Figure 5-9

SR-126/WOLCOTT/FRANKLIN
INTERSECTION VOLUMES & LAYOUT

project impact was identified at the eastbound on-ramp where the addition of project traffic caused the capacity of a single lane to be exceeded.

Figure 5-10 shows three potential layouts for this interchange. The first two feature conventional diamond configurations, while the third has a modified parclove on the south side. The first scheme has an at-grade intersection for Travel Village, while the second provides that access from Commerce Center Drive. In the third scheme, the eastbound off-ramp and the eastbound loop on-ramp would actually access a westward extension of Henry Mayo Drive. This extension would then connect to a new driveway serving the Travel Village area.

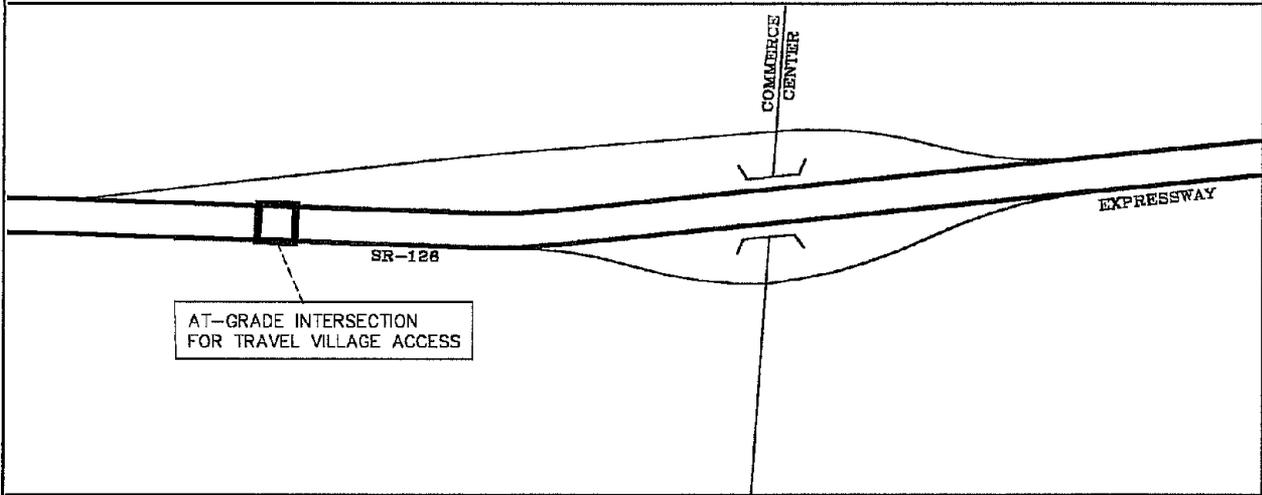
The loop on-ramp depicted in scheme three would provide one means of providing extra capacity for project traffic. Even though it would not directly serve project traffic, it would provide an additional eastbound on-ramp to be used by traffic from the Commerce Center heading east on SR-126. Project traffic would then have full utilization of the direct eastbound on-ramp. Alternatively, two lanes would need to be deployed for a single eastbound ramp in the standard diamond configuration.

A variation on schemes one and two could be an urban diamond rather than a tight diamond. The actual configuration will be the subject of special design and environmental studies. The obligation of Newhall Ranch will be to provide whatever additional capacity is required over and above that needed to serve no-project volumes.

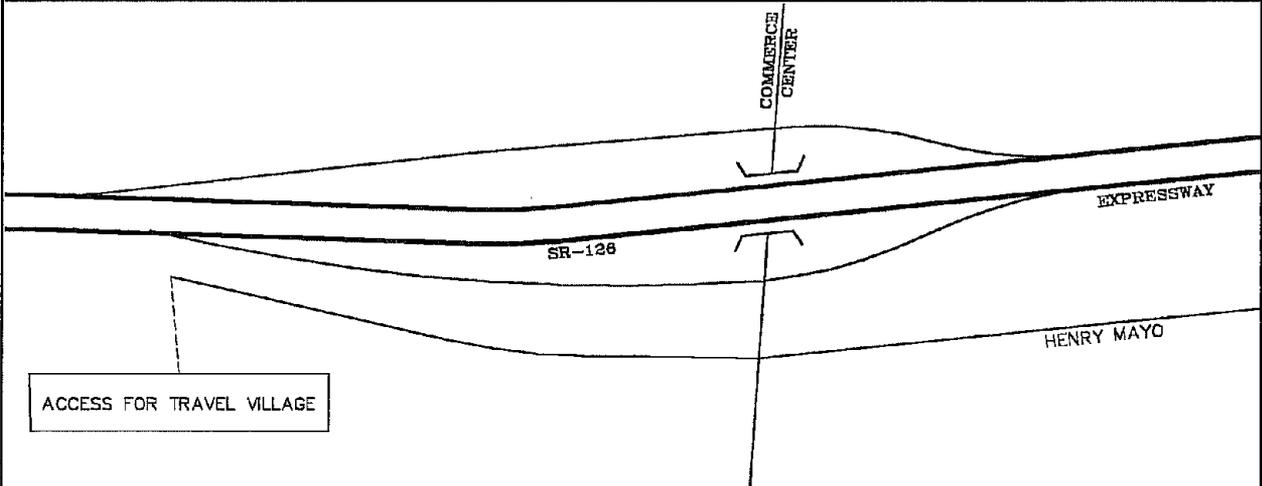
MAGIC MOUNTAIN PARKWAY AT I-5

The section of Magic Mountain Parkway west of I-5 will serve a variety of future land uses and is a major entry point to the proposed project from the east. At the present time, this portion of Magic Mountain Parkway extends only to the theme park entrance. Volumes are seasonal and relatively low west of The Old Road. Between The Old Road and I-5, current traffic volumes are somewhat higher due to the adjacent commercial area, plus the use of this section of roadway to reach the Valencia Industrial area.

SCHEME 1



SCHEME 2



SCHEME 3

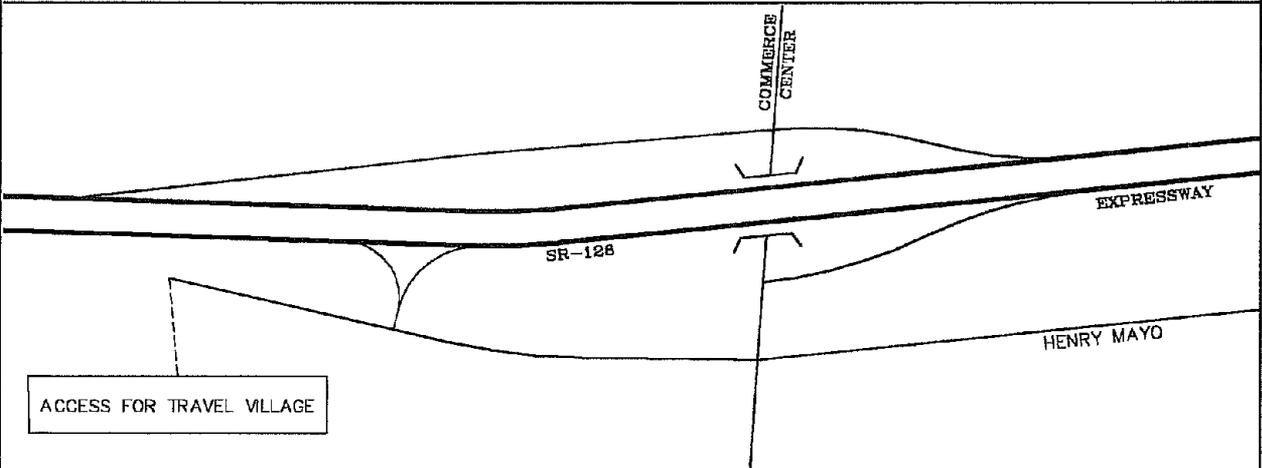


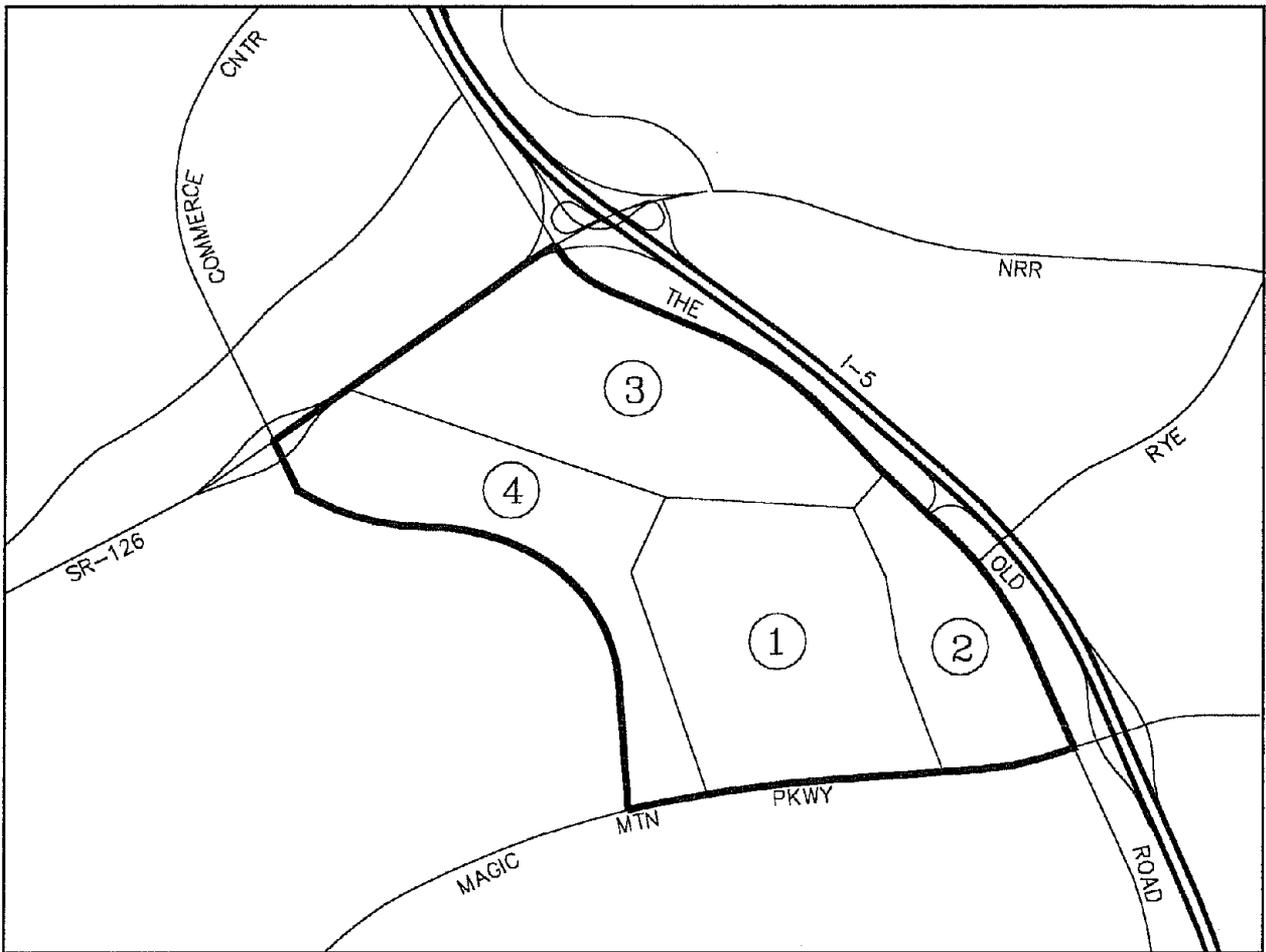
Figure 5-10
SR-126/COMMERCE CENTER DRIVE
INTERCHANGE

Future traffic forecasts show significant increases in traffic on Magic Mountain Parkway west of I-5. The primary sources of this increase in traffic can be seen in Figure 5-11, which summarizes the existing and future trip generation for the area north of Magic Mountain Parkway and west of The Old Road. In the future, the Magic Mountain theme park is assumed in the SCVCTM to offer year-round weekday operation, resulting in 24,000 daily trips. The theme park and Magic Mountain resort area account for a future 73,300 VPD of the total trip generation. This results in a no-project trip generation of 94,300 VPD for this area.

The project area adjacent to the theme park has land uses which generate 63,000 VPD, and when added to the above, results in a total daily trip generation of 157,300 VPD for this area. In addition, project development west of this area is served by Magic Mountain Parkway, adding to the total future traffic demand. The result is that future traffic demands on sections of Magic Mountain Parkway just west of The Old Road are estimated to be approximately 81,000 ADT, considerably higher than the 54,000 ADT capacity of a six-lane roadway.

For longer term capacity increases at this interchange there are two serious constraints; the width of the I-5 undercrossing, and the short distance between the southbound ramp intersection with Magic Mountain Parkway and The Old Road. The undercrossing can currently only provide sufficient width for two thru-lanes in each direction plus a westbound left-turn lane to access the southbound on-ramp. The short distance between that ramp intersection and The Old Road causes operational problems which in turn degrade the capacity at this location.

The proposed improvements to Magic Mountain Parkway in the vicinity of I-5 are illustrated in Figure 5-12. The key component to these improvements is increasing the width of Magic Mountain Parkway where it passes under I-5 to eight through lanes plus two westbound left-turn lanes. Additionally, each of the off-ramps would be widened to provide two left-turn lanes and two right-turn lanes. This configuration is currently the planned improvement for this location.



TRIP GENERATION SUMMARY

AREA	USE	EXISTING VPD	FUTURE VPD
1	THEME PARK	16000	24000
2	MAGIC MOUNTAIN RESORT	3800	49300
3	INDUSTRIAL PARK	400	21000
4	NEWHALL RANCH PROJECT	--	63000
TOTAL		20200	157300

VPD - VEHICLES PER DAY

Figure 5-11
MAGIC MOUNTAIN AREA
TRIP GENERATION

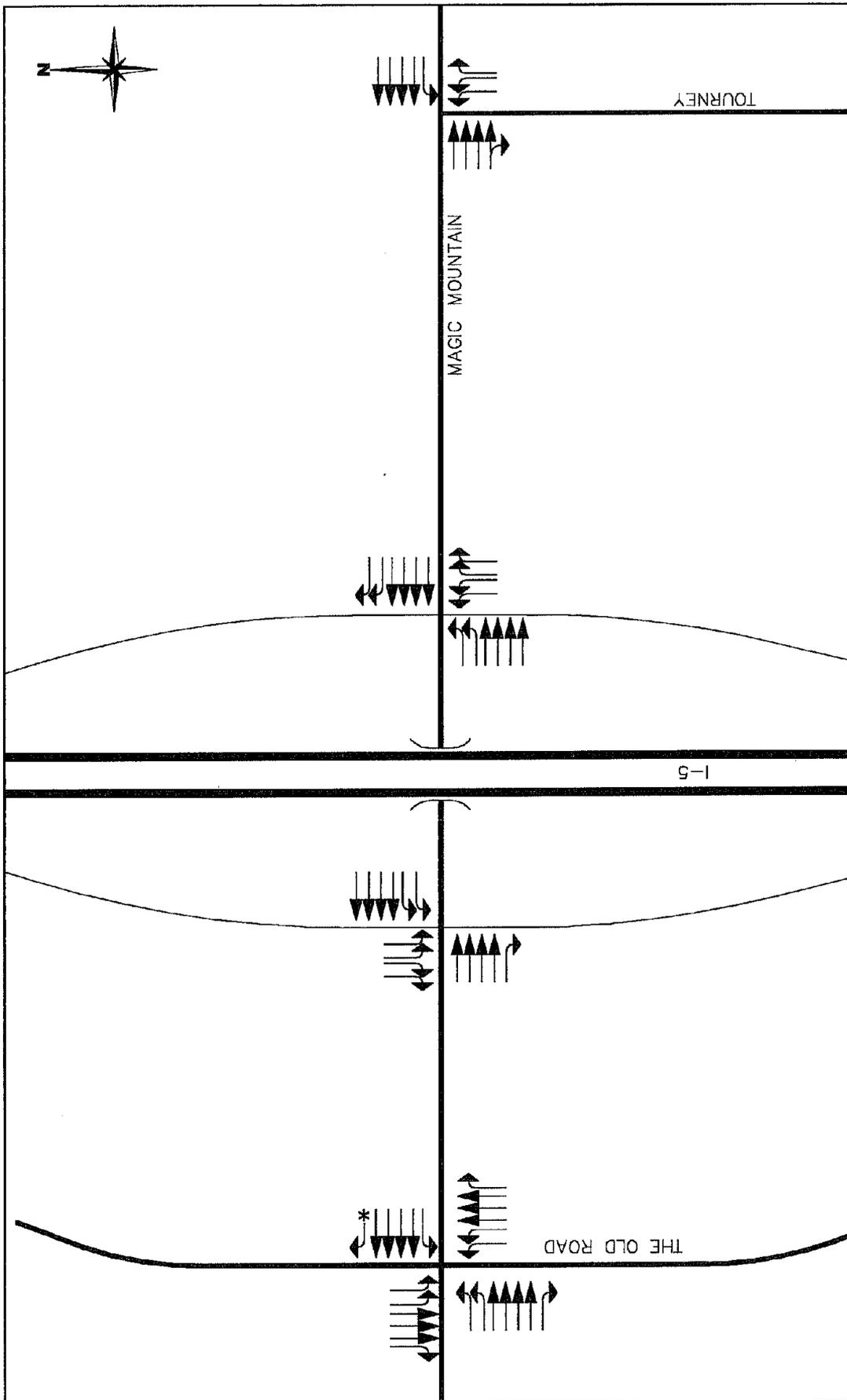


Figure 5-12
 MAGIC MOUNTAIN PARKWAY/I-5
 PROPOSED IMPROVEMENTS

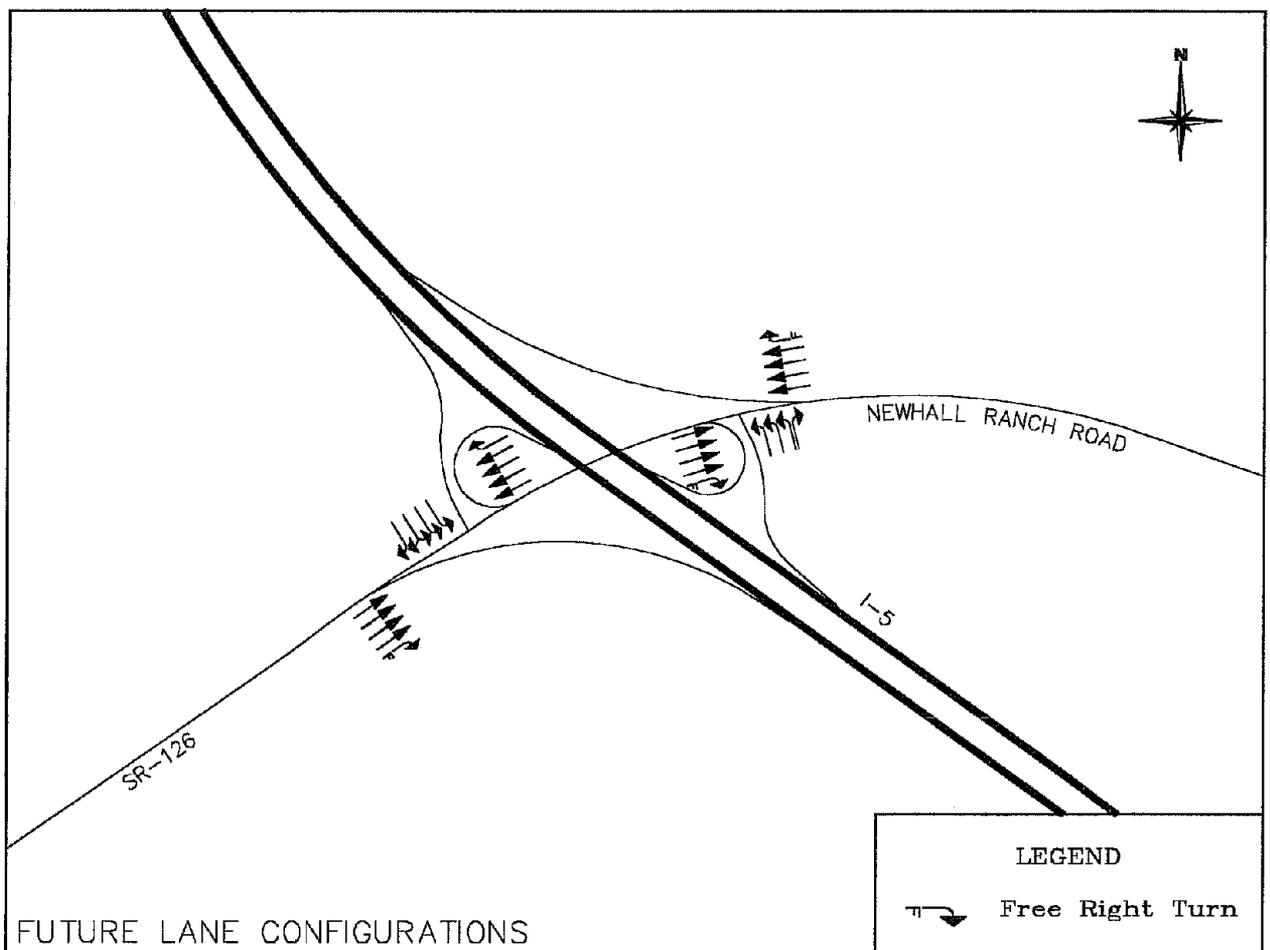
FREEWAY INTERCHANGES

The impact analysis identified several freeway interchanges that would be impacted by the project. The Magic Mountain Parkway/I-5 interchange was discussed above, and proposed mitigation for the freeway interchange impacts are as follows:

SR-126/I-5 - This interchange was assumed to be a partial cloverleaf for the purpose of this analysis (i.e., upgraded from the existing configuration). Lane configurations and peak hour ICUs for the two off-ramp intersections are shown in Figure 5-13. As can be seen here, the partial cloverleaf configuration would be adequate for each network. Since this interchange serves as a connection between two state highways, it would be the subject of a future design study to evaluate various options. The purpose of the information provided here is to show a future design that could serve future traffic volumes, including traffic from the Newhall Ranch project.

MITIGATION MEASURE SUMMARY

Tables 5-4 and 5-5 contain a complete list of the project mitigation measures where the former is based on the City Circulation Element Network and the latter is based on the Alternative Network. They are organized here according to the locational category used in this chapter of the report, and together form an overall transportation improvement program to be implemented by the project. Where the mitigation measure involves participating in future improvements, then the jurisdiction involved will be responsible for the actual timing and implementation of such improvements.



FUTURE LANE CONFIGURATIONS

LONG-RANGE PEAK HOUR ICU's
WITH NEWHALL RANCH

LOCATION	COUNTY BASE		ALTERNATIVE HIGHWAY PLAN	
	AM	PM	AM	PM
I-5/SR-126 SB RAMPS	.70	.70	.70	.69
I-5/SR-126 NB RAMPS	.67	.78	.65	.76

Figure 5-13
SR-126/I-5 INTERCHANGE

Table 5-4

PROJECT MITIGATION MEASURE SUMMARY
(City Circulation Element Network)

<u>LOCATION</u>	<u>IMPROVEMENT(S)</u>	<u>PROJECT SHARE (%)</u>
I. ON-SITE HIGHWAY SYSTEM		
On-site roadways	Construction of complete on-site roadway system including signalization where warranted	100
II. OFF-SITE ARTERIALS		
COUNTY ARTERIALS		
Commerce Ctr n/o SR-126	Additional lanes	100
Valencia e/o Pico Cyn	Additional lanes	100
Valencia e/o Poe	Additional lanes	100
Valencia w/o The Old Rd	Additional lanes	100
Valencia e/o The Old Rd	Augmented capacity	100
Magic Mtn w/o The Old Rd	Additional lanes/augmentation	59
The Old Rd n/o Magic Mtn	Additional lanes	100
The Old Rd s/o Valencia	Additional lanes	100
Copper Hill e/o Newhall Ranch	Augmented capacity	44
COUNTY/CITY ARTERIALS		
Newhall Ranch e/o McBean	Augmented capacity	100
CITY ARTERIALS		
McBean e/o I-5	Augmented capacity	100
Newhall Ranch e/o I-5	Additional lanes	100
Newhall Ranch w/o Rye	Additional lanes	100
Newhall Ranch e/o Rye	Additional lanes	100
Newhall Ranch e/o Dickason	Augmented capacity	50
Bouquet s/o Newhall Ranch	Augmented capacity	50
Magic Mtn e/o I-5	Augmented capacity	100
Valencia e/o McBean	Augmented capacity	100
Valencia n/o Magic Mtn	Augmented capacity	17
Newhall Ranch e/o Santa Clarita Pkwy	Augmented capacity	100
III. FREEWAYS AND STATE HIGHWAYS		
SR-126		
San Martinez Grande to Chiquito Cyn	Two additional arterial lanes	100
Chiquito Cyn to I-5	Upgrade to six-lane expressway	100
IV. SR-126 IN VENTURA COUNTY		
City of Fillmore	Augmented capacity at intersections with SR-126 at Central Ave, El Dorado Mobile Home Park, Mountain View, "A" St, "C" St, "D" St, and "E" St	100% of Project Increment
Near Community of Piru	Augmented capacity at intersections with SR-126 at Main St and Center St	100% of Project Increment

(Continued)

Table 5-4 (cont)
PROJECT MITIGATION MEASURE SUMMARY
 (City Circulation Element Network)

LOCATION	IMPROVEMENT(S)	PROJECT SHARE (%)
V. FREEWAY/HIGHWAY INTERCHANGES AND INTERSECTIONS		
SR-126/Chiquito Cyn	Grade separated interchange	100
SR-126/Franklin/Wolcott	Grade separated interchange	100
SR-126/Commerce Cir Dr	Interchange improvement	100% of Project Increment
SR-126/Chiquita Cyn Landfill Access	Intersection augmentation	100
SR-126/Travel Village Access	Intersection augmentation or Relocation of access point	100
I-5/Magic Mtn Pkwy	Interchange improvements	19
I-5/SR-126	Interchange improvements	24

Table 5-5

PROJECT MITIGATION MEASURE SUMMARY
(Alternative Network)

LOCATION	IMPROVEMENT(S)	PROJECT SHARE (%)
I. ON-SITE HIGHWAY SYSTEM		
On-site roadways	Construction of complete on-site roadway system including signalization where warranted	100
II. OFF-SITE ARTERIALS		
COUNTY ARTERIALS		
Commerce Ctr n/o SR-126	Additional lanes	100
Valencia e/o Pico Cyn	Additional lanes	100
Valencia e/o Poe	Additional lanes	100
Valencia w/o The Old Rd	Additional lanes	100
Magic Mtn w/o The Old Rd	Additional lanes/augmentation	59
The Old Rd s/o Magic Mtn	Additional lanes	100
Copper Hill e/o Newhall Ranch	Augmented capacity	30
Copper Hill w/o McBean	Additional lanes	100
COUNTY/CITY ARTERIALS		
Newhall Ranch e/o McBean	Augmented capacity	100
CITY ARTERIALS		
McBean n/o Magic Mtn	Augmented capacity	25
Newhall Ranch e/o I-5	Additional lanes	100
Newhall Ranch w/o Rye	Additional lanes	100
Newhall Ranch e/o Dickason	Augmented capacity	100
Valencia e/o McBean	Augmented capacity	100
Valencia n/o Magic Mtn	Augmented capacity	10
Via Princessa e/o Magic Mtn	Augmented capacity	100
Newhall Ranch w/o Bouquet	Augmented capacity	100
Newhall Ranch e/o Santa Clarita Pkwy	Augmented capacity	100
III. FREEWAYS AND STATE HIGHWAYS		
SR-126		
San Martinez Grande to Chiquito Cyn	Two additional arterial lanes	100
Chiquito Cyn to I-5	Upgrade to six-lane expressway	100
IV. SR-126 IN VENTURA COUNTY		
City of Fillmore	Augmented capacity at intersections with SR-126 at Central Ave, El Dorado Mobile Home Park, Mountain View, "A" St, "C" St, "D" St, and "E" St	100% of Project Increment
Near Community of Piru	Augmented capacity at intersections with SR-126 at Main St and Center St	100% of Project Increment

(Continued)

Table 5-5 (cont)
PROJECT MITIGATION MEASURE SUMMARY
 (Alternative Network)

LOCATION	IMPROVEMENT(S)	PROJECT SHARE (%)
V. FREEWAY/HIGHWAY INTERCHANGES AND INTERSECTIONS		
SR-126/Chiquito Cyn	Grade separated interchange	100
SR-126/Franklin/Wolcott	Grade separated interchange	100
SR-126/Commerce Cir Dr	Interchange improvement	100% of Project Increment
SR-126/Chiquita Cyn Landfill Access	Intersection augmentation	100
SR-126/Travel Village Access	Intersection augmentation or Relocation of access point	100
I-5/Magic Mtn Pkwy	Interchange improvements	19
I-5/SR-126	Interchange improvements	24

Chapter 6.0

CUMULATIVE IMPACT ANALYSIS

This chapter describes the results of a cumulative analysis which includes current General Plan Amendment applications in addition to the land uses in the current General Plans for both Los Angeles County and the City of Santa Clarita. Impacts of the project are addressed in this long-range time setting.

LAND USE

The Santa Clarita Valley Consolidated Traffic Model (SCVCTM) contains land use summarized by the status of individual projects and by general plan designations for areas in which development proposals are not on file. The status of each project, or area, is divided into the following categories: existing land use, recorded tracts, approved tracts, tracts pending approval, and open tracts which are still available for future development. The combination of land uses in all categories corresponds to buildout of the City and County General Plans which was used for analyzing project impacts on the current General Plans. In order to analyze cumulative impacts an assessment of general plan amendments currently being processed was made by Los Angeles County Department of Regional Planning Staff to determine what other reasonably foreseeable projects should be added to the buildout data base to create a cumulative data base. A list of these cumulative projects and a corresponding traffic analysis zone (TAZ) map are included in Appendix E.

IMPACT ANALYSIS

An ADT capacity analysis was conducted which included the cumulative projects in the long-range database. A comparison of tripends with and without the cumulative projects shows an

additional 129,467 ADT (or an increase of four percent) which is distributed throughout the model area on both the east and west side of Interstate 5. The resulting capacity analysis was conducted for both the City Circulation Element Network and the No Avenue Tibbitts Bridge Alternative Network.

City Circulation Element Network

Figure 6-1 shows the long-range with-project ADT volumes with the addition of the cumulative projects using the City Circulation Element Network. These forecasts can be compared with the corresponding with-project volumes for the General Plan database (see Figure 4-4 on Page 4-9 in Chapter 4.0).

The resulting impact of the cumulative projects on the City Circulation Element circulation system along with the Newhall Ranch project can be seen on Table 6-1. This table shows the combined project contribution for both the cumulative projects and the Newhall Ranch project and also shows the project contribution for the Newhall Ranch project alone. The lane and capacity assumptions listed in the table are the same as those used previously in Chapter 4.0 for the City Circulation Element Network.

Several locations exceed the acceptable level of service ($V/C > 1.00$) with the addition of the cumulative projects, these impacted locations are as follows:

DEFICIENT LOCATIONS	
22. Magic Mtn w/o The Old Rd	107. Via Princessa e/o Magic Mtn
33. Pico w/o McBean	117. Lyons e/o Orchard Village
51. Newhall Ranch w/o Rye	128. Newhall Ranch w/o Bouquet
53. Newhall Ranch e/o Dickason	

No Avenue Tibbitts Bridge Alternative Network

Figure 6-2 shows the long-range with-project ADT volumes with the addition of the cumulative projects using the Alternative Network. These forecasts can be compared with the corresponding with-project volumes for the General Plan database (see Figure 4-6 on Page 4-16 in Chapter 4.0).

Table 6-1

**LONG-RANGE ADT VOLUME SUMMARY
CITY CIRCULATION ELEMENT NETWORK**

Link #/Location	Lanes	Capacity	No-Project		W/Newhall Ranch W/Cumulative Projects Combined		Combined Proj. Contr.	Newhall Ranch Contr.
			VOL	V/C	VOL	V/C		
1. Hasley Cyn w/o Del Valle	2	16,000	3,000	.19	6,000	.38	.19	.00
2. Hasley Cyn e/o Del Valle	4	32,000	5,000	.16	8,000	.25	.09	.03
3. Del Valle n/o Chiquito Cyn	2	16,000	3,000	.19	7,000	.44	.25	.12
4. Chiquito Cyn w/o Del Valle	6	54,000	3,000	.06	3,000	.06	.00	.00
5. Chiquito Cyn e/o Del Valle	6	54,000	2,000	.04	7,000	.13	.09	.05
9. Hasley Cyn e/o I-5	6	54,000	5,000	.09	20,000	.37	.28	.06
10. Hasley Cyn w/o I-5	6	54,000	45,000	.83	46,000	.85	.02	.06
11. Commerce Cnt Dr s/o Hasley	6	54,000	40,000	.74	38,000	.70	-.04	.07
12. Commerce Cnt Dr n/o SR-126	6	54,000	30,000	.56	35,000	.65	.09	.07
15. Valencia e/o Pico Cyn	6	54,000	5,000	.09	41,000	.76	.67	.35
17. Valencia e/o Poe	6	54,000	5,000	.09	40,000	.74	.65	.34
18. Valencia w/o The Old Rd	6	54,000	19,000	.35	52,000	.96	.61	.46
19. Valencia e/o The Old Rd	6 A	65,000	40,000	.62	58,000	.89	.27	.26
22. Magic Mtn w/o The Old Rd	6 A	65,000	65,000	1.00	83,000	1.28	.28	.25
23. The Old Rd n/o Commerce Cnt	6	54,000	13,000	.24	14,000	.26	.02	.00
24. The Old Rd n/o Franklin	6	54,000	14,000	.26	13,000	.24	-.02	-.07
25. The Old Rd n/o SR-126	6	54,000	11,000	.20	13,000	.24	.04	-.01
26. The Old Rd s/o SR-126	6	54,000	14,000	.26	19,000	.35	.09	.07
27. The Old Rd s/o Henry Mayo	6	54,000	23,000	.43	26,000	.48	.05	.03
28. The Old Rd n/o Magic Mtn	6	54,000	30,000	.56	37,000	.69	.13	.09
29. The Old Rd s/o Magic Mtn	6	54,000	34,000	.63	37,000	.69	.06	.06
30. The Old Rd s/o Valencia	6	54,000	28,000	.52	37,000	.69	.17	.09
31. The Old Rd s/o McBean	6	54,000	27,000	.50	30,000	.56	.06	.07
32. The Old Rd s/o Lyons	4	32,000	10,000	.31	10,000	.31	.00	.00
33. Pico w/o McBean	4	32,000	23,000	.72	37,000	1.16	.44	.28
34. Pico e/o McBean	4	32,000	22,000	.69	29,000	.91	.22	.19
35. McBean w/o The Old Rd	6	54,000	36,000	.67	41,000	.76	.09	.00
36. McBean e/o I-5	6 A	65,000	52,000	.80	53,000	.82	.02	.05
37. McBean e/o Tournament	6	54,000	33,000	.61	34,000	.63	.02	.02
38. McBean s/o Valencia	6	54,000	46,000	.85	48,000	.89	.04	.02
39. McBean n/o Valencia	8	72,000	55,000	.76	57,000	.79	.03	.02
40. McBean n/o Magic Mtn	8	72,000	65,000	.90	70,000	.97	.07	.03
41. McBean s/o Newhall Ranch Rd	8	72,000	59,000	.82	65,000	.90	.08	.03
42. McBean n/o Newhall Ranch Rd	6	54,000	50,000	.93	51,000	.94	.01	-.02
43. McBean n/o Decoro	6	54,000	46,000	.85	48,000	.89	.04	-.02
50. Newhall Ranch Rd e/o I-5	8	72,000	47,000	.65	67,000	.93	.28	.27
51. Newhall Ranch Rd w/o Rye	8	72,000	50,000	.69	73,000	1.01	.32	.24
52. Newhall Ranch Rd e/o Rye	8	72,000	54,000	.75	69,000	.96	.21	.13
53. Newhall Ranch e/o Dickason	8 A	86,000	80,000	.93	98,000	1.14	.21	.09
54. Newhall Ranch Rd e/o McBean	8 A	86,000	72,000	.84	77,000	.90	.06	.03
55. Newhall Ranch e/o Bouquet	6	54,000	42,000	.78	42,000	.78	.00	.00
56. Castaic n/o Newhall Ranch Rd	4	32,000	10,000	.31	15,000	.47	.16	-.06
57. Castaic s/o Commerce Cnt Dr	4	32,000	4,000	.13	13,000	.41	.28	.09
58. Castaic n/o Commerce Cnt Dr	4	32,000	5,000	.16	27,000	.84	.68	.00
60. Franklin w/o Commerce Cnt	4	32,000	9,000	.28	25,000	.78	.50	.41
61. Franklin e/o Commerce Cnt	4	32,000	5,000	.16	9,000	.28	.12	.03
63. Rye e/o I-5	6	54,000	22,000	.41	25,000	.46	.05	.02

(Continued)

Table 6-1 (cont)
LONG-RANGE ADT VOLUME SUMMARY
CITY CIRCULATION ELEMENT NETWORK

Link #/Location	Lanes	Capacity	No-Project		W/Newhall Ranch W/Cumulative Projects Combined		Combined Proj. Contr.	Newhall Ranch Contr.
			VOL	V/C	VOL	V/C		
64. Rye e/o Scott	6	54,000	39,000	.72	41,000	.76	.04	.00
65. Copper Hill e/o Newhall Ranch	6 A	65,000	59,000	.91	64,000	.98	.07	.06
66. Copper Hill n/o Decoro	6	54,000	34,000	.63	41,000	.76	.13	.04
67. Copper Hill e/o McBean	6	54,000	46,000	.85	47,000	.87	.02	.02
68. Copper Hill e/o Seco	4	32,000	19,000	.59	19,000	.59	.00	.00
69. Copper Hill e/o Haskell	4	32,000	14,000	.44	14,000	.44	.00	.00
70. Decoro e/o Copper Hill	4	32,000	14,000	.44	14,000	.44	.00	.03
71. Decoro e/o Dickason	4	32,000	25,000	.78	27,000	.84	.06	.03
72. Decoro e/o McBean	4	32,000	21,000	.66	22,000	.69	.03	.03
73. Haskell n/o Bouquet	4	32,000	14,000	.44	15,000	.47	.03	.03
74. Seco n/o Decoro	4	32,000	20,000	.63	22,000	.69	.06	.00
75. Seco s/o Decoro	4	32,000	23,000	.72	24,000	.75	.03	.00
76. Bouquet e/o Haskell	6	54,000	37,000	.69	38,000	.70	.01	.01
77. Bouquet e/o Rio Vista	6	54,000	50,000	.93	52,000	.96	.03	.01
78. Bouquet n/o Newhall Ranch	8	72,000	66,000	.92	69,000	.96	.04	.01
79. Bouquet s/o Newhall Ranch	8 A	86,000	73,000	.85	75,000	.87	.02	.01
80. Bouquet n/o Magic Mtn	6	54,000	35,000	.65	35,000	.65	.00	.00
81. San Fernando s/o Magic Mtn	6	54,000	38,000	.70	40,000	.74	.04	.02
82. San Fernando s/o Wiley	6	54,000	34,000	.63	35,000	.65	.02	.00
83. San Fernando n/o Placerita	6	54,000	32,000	.59	33,000	.61	.02	.00
84. San Fernando s/o Placerita	6	54,000	30,000	.56	31,000	.57	.01	.00
85. San Fernando s/o Lyons	6	54,000	27,000	.50	28,000	.52	.02	.02
86. Ave Scott e/o Rye	6	54,000	15,000	.28	15,000	.28	.00	.00
87. Ave Scott e/o Dickason	6	54,000	17,000	.31	19,000	.35	.04	.02
88. Magic Mtn e/o I-5	8 A	86,000	71,000	.83	77,000	.90	.07	.05
89. Magic Mtn e/o Tourney	8	72,000	41,000	.57	46,000	.64	.07	.06
90. Magic Mtn e/o McBean	8	72,000	45,000	.63	49,000	.68	.05	.04
91. Magic Mtn e/o Valencia	8	72,000	51,000	.71	52,000	.72	.01	.01
92. Magic mtn e/o San Fernando	6	54,000	43,000	.80	44,000	.81	.01	.00
93. Tourney n/o Valencia	6	54,000	23,000	.43	25,000	.46	.03	.03
94. Rockwell s/o Valencia	4	32,000	26,000	.81	27,000	.84	.03	.03
95. Tournament s/o McBean	4	32,000	12,000	.38	13,000	.41	.03	.00
96. Valencia e/o I-5	8	72,000	59,000	.82	70,000	.97	.15	.14
98. Valencia e/o Rockwell	8	72,000	67,000	.93	71,000	.99	.06	.07
99. Valencia e/o McBean	6 A	65,000	53,000	.82	57,000	.88	.06	.04
100. Valencia n/o Magic Mtn	6 A	65,000	59,000	.91	61,000	.94	.03	.01
101. Soledad e/o Bouquet	6	54,000	39,000	.72	41,000	.76	.04	.04
102. Wiley s/o Lyons	4	32,000	22,000	.69	24,000	.75	.06	.09
103. Wiley n/o Lyons	6	54,000	33,000	.61	36,000	.67	.06	.02
104. Wiley e/o Tournament	6	54,000	25,000	.46	29,000	.54	.08	.02
105. Wiley e/o Orchard Village	6	54,000	41,000	.76	41,000	.76	.00	.00
106. Via Princessa e/o San Ferna	6	54,000	40,000	.74	39,000	.72	-.02	-.02
107. Via Princessa e/o Magic Mtn	6	54,000	56,000	1.04	56,000	1.04	.00	.00
108. 15th St e/o Orchard Village	4	32,000	12,000	.38	12,000	.38	.00	.03
109. Newhall n/o Lyons	4	32,000	6,000	.19	7,000	.22	.03	.03
110. Newhall s/o Lyons	4	32,000	28,000	.88	30,000	.94	.06	.03
111. San Fernando e/o Newhall	6	54,000	47,000	.87	48,000	.89	.02	.02

(Continued)

Table 6-1 (cont)
LONG-RANGE ADT VOLUME SUMMARY
CITY CIRCULATION ELEMENT NETWORK

Link #/Location	Lanes	Capacity	No-Project		W/Newhall Ranch W/Cumulative Projects Combined		Combined Proj. Contr.	Newhall Ranch Contr.
			VOL	V/C	VOL	V/C		
112. Orchard Village s/o McBean	6	54,000	47,000	.87	53,000	.98	.11	.07
113. Orchard Village s/o Wiley	6	54,000	30,000	.56	32,000	.59	.03	.01
114. Orchard Village s/o Lyons	4	32,000	11,000	.34	11,000	.34	.00	.00
115. Lyons e/o I-5	6	54,000	50,000	.93	53,000	.98	.05	.03
116. Lyons e/o Wiley	6	54,000	45,000	.83	46,000	.85	.02	.02
117. Lyons e/o Orchard Village	6	54,000	53,000	.98	55,000	1.02	.04	.02
118. Lyons w/o San Fernando	6	54,000	23,000	.43	25,000	.46	.03	.03
119. McBean e/o Orchard Village	6	54,000	34,000	.63	35,000	.65	.02	.00
122. Dockweiler e/o San Fernando	6	54,000	24,000	.44	26,000	.48	.04	.02
123. Tibbitts s/o Newhall Ranch	6	54,000	41,000	.76	44,000	.81	.05	.02
124. Dickason s/o Decoro	4	32,000	15,000	.47	20,000	.63	.16	-.03
126. Bouquet e/o Seco	6	54,000	51,000	.94	53,000	.98	.04	.00
128. Newhall Ranch w/o Bouquet	8	72,000	70,000	.97	75,000	1.04	.07	.03
130. Newhall Ranch e/o Santa Clr	6 A	65,000	54,000	.83	56,000	.86	.03	.03
143. Soledad w/o Golden Valley	6	54,000	39,000	.72	39,000	.72	.00	.00
151. Via Princesa w/o MMP	6	54,000	40,000	.74	39,000	.72	-.02	-.02
164. Santa Clarita n/o NRR	6	54,000	34,000	.63	36,000	.67	.04	.02
171. Santa Clarita n/o Soledad	6	54,000	31,000	.57	32,000	.59	.02	.00
172. Santa Clarita s/o Soledad	6	54,000	35,000	.65	38,000	.70	.05	.02
176. Santa Clarita s/o Via Prncs	6	54,000	22,000	.41	23,000	.43	.02	.02
194. Copperhill w/o McBean	6	54,000	31,000	.57	36,000	.67	.10	.02
240. Tibbitts s/o Scott	6	54,000	40,000	.74	42,000	.78	.04	.04
250. "E" s/o Magic Mountain	4	32,000	3,000	.09	14,000	.44	.35	.35
251. Poe s/o Valencia	4	32,000	1,000	.03	2,000	.06	.03	.03

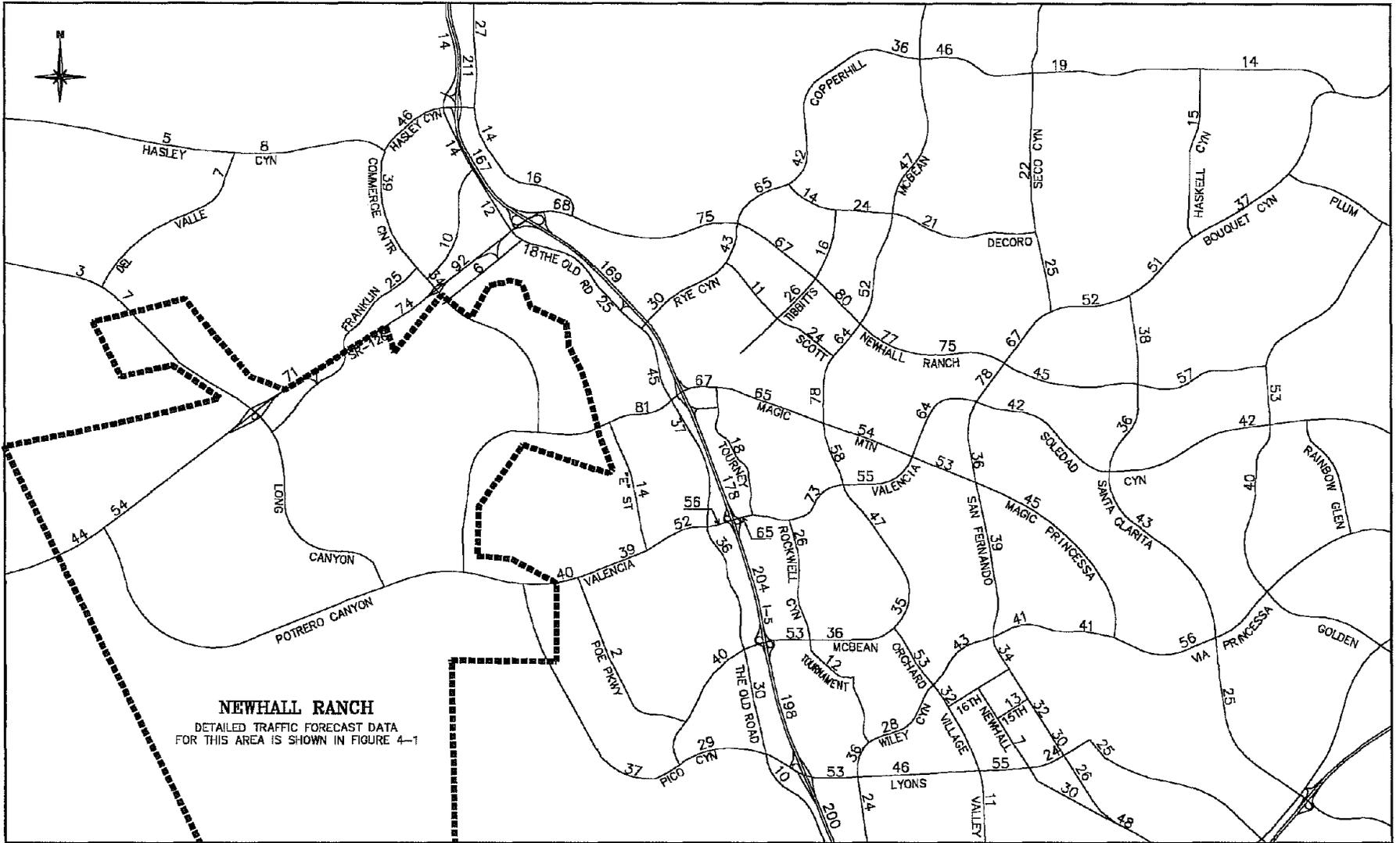


Figure 6-2
LONG-RANGE ADT VOLUMES (000s)
NO TIBBITTS BRIDGE ALT. NETWORK
WITH NR AND CUMULATIVE PROJECTS

The resulting impact of the cumulative projects on the Alternative Network circulation system along with the Newhall Ranch project can be seen on Table 6-2. Like the previous table, this table also shows the combined project contribution for both the cumulative projects and the Newhall Ranch project as well as the project contribution for the Newhall Ranch project alone. The lane and capacity assumptions listed on table are the same as those used previously in Chapter 4.0 for the Alternative Network.

Several locations exceed the acceptable level of service ($V/C > 1.00$) with the addition of the cumulative projects, these impacted locations are as follows:

DEFICIENT LOCATIONS	
19. Valencia e/o The Old Rd	51. Newhall Ranch w/o Rye Cyn
22. Magic Mtn w/o The Old Rd	98. Valencia e/o Rockwell
33. Pico w/o McBean	117. Lyons e/o Orchard Village

MITIGATION MEASURES

The combination of the Newhall Ranch project and the cumulative projects contribute to the deficiencies on the arterial segments noted above. The deficiencies need to be mitigated by providing additional capacity to each segment. This can be accomplished through a variety of strategies including intersection improvements, roadway improvements, and operational efficiency improvements (see detailed discussion on augmentation in Chapter 5.0).

The proposed project mitigation is to participate in capacity augmentation on a fair share basis. Table 6-3 shows examples of how a fair share formula could be derived for individual sections of roadways that are deficient using the City Circulation Element Network. This table shows the roadways which need augmentation beyond a standard Master Plan of Highways roadway capacity, the additional capacity needed, and how the project share of that capacity is divided between the cumulative projects and the Newhall Ranch project based on the proportion of project contribution percentages.

Table 6-2

**LONG-RANGE ADT VOLUME SUMMARY
CUMULATIVE IMPACT ANALYSIS
(Alternative Network)**

Link #/Location	Lanes	Capacity	No-Project		W/Newhall Ranch & Cumulative Projects Combined		Combined Proj. Contr.	Newhall Ranch Contr.
			VOL	V/C	VOL	V/C		
1. Hasley Cyn w/o Del Valle	2	16,000	3,000	.19	5,000	.31	.12	.00
2. Hasley Cyn e/o Del Valle	4	32,000	5,000	.16	8,000	.25	.09	.03
3. Del Valle n/o Chiquito Cyn	2	16,000	3,000	.19	7,000	.44	.25	.12
4. Chiquito Cyn w/o Del Valle	6	54,000	3,000	.06	3,000	.06	.00	.00
5. Chiquito Cyn e/o Del Valle	6	54,000	2,000	.04	7,000	.13	.09	.05
9. Hasley Cyn e/o I-5	6	54,000	5,000	.09	21,000	.39	.30	.06
10. Hasley Cyn w/o I-5	6	54,000	46,000	.85	46,000	.85	.00	.04
11. Commerce Ctr Dr s/o Hasley	6	54,000	41,000	.76	39,000	.72	-.04	.05
12. Commerce Ctr Dr n/o SR-126	6	54,000	30,000	.56	34,000	.63	.07	.07
15. Valencia e/o Pico Cyn	6	54,000	5,000	.09	40,000	.74	.65	.35
17. Valencia e/o Poe	6	54,000	5,000	.09	39,000	.72	.63	.34
18. Valencia w/o The Old Rd	6	54,000	19,000	.35	52,000	.96	.61	.46
19. Valencia e/o The Old Rd	6	54,000	35,000	.65	56,000	1.04	.39	.33
22. Magic Mtn w/o The Old Rd	6 A	65,000	64,000	.98	81,000	1.25	.27	.25
23. The Old Rd n/o Commerce Ctr	6	54,000	13,000	.24	14,000	.26	.02	.00
24. The Old Rd n/o Franklin	6	54,000	15,000	.28	14,000	.26	-.02	-.09
25. The Old Rd n/o SR-126	6	54,000	10,000	.19	12,000	.22	.03	.01
26. The Old Rd s/o SR-126	6	54,000	13,000	.24	18,000	.33	.09	.09
27. The Old Rd s/o Henry Mayo	6	54,000	23,000	.43	25,000	.46	.03	.03
28. The Old Rd n/o Magic Mtn	6	54,000	40,000	.74	45,000	.83	.09	.06
29. The Old Rd s/o Magic Mtn	6	54,000	30,000	.56	37,000	.69	.13	.11
30. The Old Rd s/o Valencia	6	54,000	26,000	.48	36,000	.67	.19	.09
31. The Old Rd s/o McBean	6	54,000	26,000	.48	30,000	.56	.08	.06
32. The Old Rd s/o Lyons	4	32,000	10,000	.31	10,000	.31	.00	.00
33. Pico w/o McBean	4	32,000	23,000	.72	37,000	1.16	.44	.25
34. Pico e/o McBean	4	32,000	22,000	.69	29,000	.91	.22	.19
35. McBean w/o The Old Rd	6	54,000	36,000	.67	40,000	.74	.07	.00
36. McBean e/o I-5	6	54,000	50,000	.93	53,000	.98	.05	.07
37. McBean e/o Tournament	6	54,000	33,000	.61	36,000	.67	.06	.02
38. McBean s/o Valencia	6	54,000	48,000	.89	47,000	.87	-.02	.00
39. McBean n/o Valencia	8	72,000	57,000	.79	58,000	.81	.02	.02
40. McBean n/o Magic Mtn	8 A	86,000	75,000	.87	78,000	.91	.04	.01
41. McBean s/o Newhall Ranch Rd	8	72,000	64,000	.89	64,000	.89	.00	.00
42. McBean n/o Newhall Ranch Rd	6	54,000	49,000	.91	52,000	.96	.05	.02
43. McBean n/o Decoro	6	54,000	44,000	.81	47,000	.87	.06	-.01
50. Newhall Ranch Rd e/o I-5	8	72,000	51,000	.71	68,000	.94	.23	.22
51. Newhall Ranch Rd w/o Rye	8	72,000	54,000	.75	75,000	1.04	.29	.21
52. Newhall Ranch Rd e/o Rye	8	72,000	55,000	.76	67,000	.93	.17	.10
53. Newhall Ranch e/o Dickason	8 A	86,000	70,000	.81	80,000	.93	.12	.05
54. Newhall Ranch Rd e/o McBean	8 A	86,000	71,000	.83	77,000	.90	.07	.04
55. Newhall Ranch e/o Bouquet	6	54,000	43,000	.80	45,000	.83	.03	.02
56. Castaic n/o Newhall Ranch Rd	4	32,000	10,000	.31	16,000	.50	.19	-.03
57. Castaic s/o Commerce Ctr Dr	4	32,000	4,000	.13	14,000	.44	.31	.12
58. Castaic n/o Commerce Ctr Dr	4	32,000	5,000	.16	27,000	.84	.68	.00
60. Franklin w/o Commerce Ctr	4	32,000	9,000	.28	25,000	.78	.50	.41
61. Franklin e/o Commerce Ctr	4	32,000	5,000	.16	10,000	.31	.15	.06
63. Rye e/o I-5	6	54,000	30,000	.56	30,000	.56	.00	.01

(Continued)

Table 6-2 (cont)
LONG-RANGE ADT VOLUME SUMMARY
CUMULATIVE IMPACT ANALYSIS
(Alternative Network)

Link #/Location	Lanes	Capacity	No-Project		W/Newhall Ranch & Cumulative Projects		Combined Proj. Contr.	Newhall Ranch Contr.
			VOL	V/C	Combined VOL	V/C		
64. Rye e/o Scott	6	54,000	44,000	.81	43,000	.80	-.01	.00
65. Copper Hill e/o Newhall Ranch	6 A	65,000	61,000	.94	65,000	1.00	.06	.04
66. Copper Hill n/o Decoro	6	54,000	36,000	.67	42,000	.78	.11	.02
67. Copper Hill e/o McBean	6	54,000	46,000	.85	46,000	.85	.00	.00
68. Copper Hill e/o Seco	4	32,000	18,000	.56	19,000	.59	.03	.00
69. Copper Hill e/o Haskell	4	32,000	14,000	.44	14,000	.44	.00	.00
70. Decoro e/o Copper Hill	4	32,000	14,000	.44	14,000	.44	.00	.00
71. Decoro e/o Dickason	4	32,000	23,000	.72	24,000	.75	.03	.00
72. Decoro e/o McBean	4	32,000	21,000	.66	21,000	.66	.00	.00
73. Haskell n/o Bouquet	4	32,000	15,000	.47	15,000	.47	.00	-.03
74. Seco n/o Decoro	4	32,000	20,000	.63	22,000	.69	.06	.00
75. Seco s/o Decoro	4	32,000	23,000	.72	25,000	.78	.06	.03
76. Bouquet e/o Haskell	6	54,000	37,000	.69	37,000	.69	.00	.01
77. Bouquet e/o Rio Vista	6	54,000	51,000	.94	51,000	.94	.00	.00
78. Bouquet n/o Newhall Ranch	8	72,000	66,000	.92	67,000	.93	.01	.00
79. Bouquet s/o Newhall Ranch	8 A	86,000	77,000	.90	78,000	.91	.01	.00
80. Bouquet n/o Magic Mtn	6	54,000	35,000	.65	36,000	.67	.02	.00
81. San Fernando s/o Magic Mtn	6	54,000	39,000	.72	39,000	.72	.00	-.02
82. San Fernando s/o Wiley	6	54,000	34,000	.63	34,000	.63	.00	.00
83. San Fernando n/o Placerita	6	54,000	32,000	.59	32,000	.59	.00	.00
84. San Fernando s/o Placerita	6	54,000	30,000	.56	30,000	.56	.00	.00
85. San Fernando s/o Lyons	6	54,000	26,000	.48	26,000	.48	.00	.02
86. Ave Scott e/o Rye	6	54,000	10,000	.19	11,000	.20	.01	.00
87. Ave Scott e/o Dickason	6	54,000	21,000	.39	24,000	.44	.05	.02
88. Magic Mtn e/o I-5	8	72,000	57,000	.79	67,000	.93	.14	.11
89. Magic Mtn e/o Tourney	8	72,000	57,000	.79	65,000	.90	.11	.09
90. Magic Mtn e/o McBean	8	72,000	49,000	.68	54,000	.75	.07	.04
91. Magic Mtn e/o Valencia	8	72,000	51,000	.71	53,000	.74	.03	.00
92. Magic mtn e/o San Fernando	6	54,000	44,000	.81	45,000	.83	.02	-.01
93. Tourney n/o Valencia	6	54,000	19,000	.35	18,000	.33	-.02	.00
94. Rockwell s/o Valencia	4	32,000	25,000	.78	26,000	.81	.03	.03
95. Tournament s/o McBean	4	32,000	12,000	.38	12,000	.38	.00	.00
96. Valencia e/o I-5	8	72,000	55,000	.76	65,000	.90	.14	.10
98. Valencia e/o Rockwell	8	72,000	68,000	.94	73,000	1.01	.07	.06
99. Valencia e/o McBean	6 A	65,000	54,000	.83	55,000	.85	.02	.03
100. Valencia n/o Magic Mtn	6 A	65,000	63,000	.97	64,000	.98	.01	.01
101. Soledad e/o Bouquet	6	54,000	40,000	.74	42,000	.78	.04	.02
102. Wiley s/o Lyons	4	32,000	22,000	.69	24,000	.75	.06	.09
103. Wiley n/o Lyons	6	54,000	34,000	.63	36,000	.67	.04	.02
104. Wiley e/o Tournament	6	54,000	27,000	.50	28,000	.52	.02	.02
105. Wiley e/o Orchard Village	6	54,000	40,000	.74	43,000	.80	.06	.04
106. Via Princessa e/o San Ferna	6	54,000	39,000	.72	41,000	.76	.04	.02
107. Via Princessa e/o Magic Mtn	6 A	65,000	54,000	.83	56,000	.86	.01	.02
108. 15th St e/o Orchard Village	4	32,000	11,000	.34	13,000	.41	.07	.04
109. Newhall n/o Lyons	4	32,000	5,000	.16	7,000	.22	.06	.03
110. Newhall s/o Lyons	4	32,000	28,000	.88	30,000	.94	.06	.03
111. San Fernando e/o Newhall	6	54,000	46,000	.85	48,000	.89	.04	.02

(Continued)

Table 6-2 (cont)
LONG-RANGE ADT VOLUME SUMMARY
CUMULATIVE IMPACT ANALYSIS
(Alternative Network)

Link #/Location	Lanes	Capacity	No-Project		W/Newhall Ranch & Cumulative Projects Combined		Combined Proj. Contr.	Newhall Ranch Contr.
			VOL	V/C	VOL	V/C		
112. Orchard Village s/o McBean	6	54,000	46,000	.85	53,000	.98	.13	.09
113. Orchard Village s/o Wiley	6	54,000	29,000	.54	32,000	.59	.05	.02
114. Orchard Village s/o Lyons	4	32,000	11,000	.34	11,000	.34	.00	.00
115. Lyons e/o I-5	6	54,000	50,000	.93	53,000	.98	.05	.03
116. Lyons e/o Wiley	6	54,000	44,000	.81	46,000	.85	.04	.02
117. Lyons e/o Orchard Village	6	54,000	52,000	.96	55,000	1.02	.06	.02
118. Lyons w/o San Fernando	6	54,000	22,000	.41	24,000	.44	.03	.03
119. McBean e/o Orchard Village	6	54,000	35,000	.65	35,000	.65	.00	.00
122. Dockweiler e/o San Fernando	6	54,000	23,000	.43	25,000	.46	.03	.01
123. Tibbitts s/o Newhall Ranch	6	54,000	19,000	.35	26,000	.48	.13	.02
124. Dickason s/o Decoro	4	32,000	11,000	.34	16,000	.50	.16	.04
126. Bouquet e/o Seco	6	54,000	51,000	.94	52,000	.96	.02	.02
128. Newhall Ranch w/o Bouquet	8 A	86,000	70,000	.81	75,000	.87	.06	.04
130. Newhall Ranch e/o Santa Clr	6	65,000	54,000	.83	57,000	.88	.05	.03
143. Soledad w/o Golden Valley	6	54,000	40,000	.74	42,000	.78	.04	.02
151. Via Princessa w/o MMP	6	54,000	39,000	.72	41,000	.76	.04	.02
164. Santa Clarita n/o NRR	6	54,000	36,000	.67	38,000	.70	.03	.02
171. Santa Clarita n/o Soledad	6	54,000	34,000	.63	36,000	.67	.04	.02
172. Santa Clarita s/o Soledad	6	54,000	39,000	.72	43,000	.80	.08	.04
176. Santa Clarita s/o Via Prncs	6	54,000	23,000	.43	25,000	.46	.03	.03
194. Copperhill w/o McBean	6	54,000	32,000	.59	36,000	.67	.08	.02
250. "E" s/o Magic Mountain	4	32,000	3,000	.09	14,000	.44	.35	.35
251. Poe s/o Valencia	4	32,000	1,000	.03	2,000	.06	.03	.03

Table 6-3

PROJECT PARTICIPATION IN AUGMENTED
ARTERIAL ROADWAY IMPROVEMENTS
CUMULATIVE PROJECT SETTING
(City Circulation Element Network)

LOCATION	NON-AUG CAPACITY	ADT WITHOUT PROJECTS	ADT WITH CUM PROJ AND NRR	PROJ DIFF. ¹	AUG CAPACITY NEEDED ²	CUM PROJ SHARE ³	NRR PROJ SHARE ⁴
22. Magic Mtn w/o The Old Road	54000	65000	83000	18000	29000	.11	.89
33. Pico w/o McBean	32,000	23,000	37,000	14,000	5,000	.36	.64
51. Newhall Ranch w/o Rye	72,000	50,000	73,000	23,000	1,000	.25	.75
53. Newhall Ranch e/o Dickason	72000	80000	98000	18000	26000	.57	.43
107. Via Princessa e/o Magic Mtn	54,000	56,000	56,000	0	2,000	.00	.00
117. Lyons e/o Orchard Village	54,000	53,000	55,000	2,000	1,000	.50	.50
128. Newhall Ranch w/o Bouquet	72,000	70,000	75,000	5,000	3,000	.57	.43

AUG - augmented
CUM - cumulative
NR - Newhall Ranch

¹ ADT with projects minus ADT without projects

² ADT with projects minus non-augmented capacity

³ Cumulative projects share of needed augmented capacity

⁴ Newhall Ranch share of needed augmented capacity. (Newhall Ranch contribution divided by the combined project contribution as shown in Table 6-1)

STATE HIGHWAYS AND FREEWAYS

The cumulative setting impact analysis results for State Highways and freeways is summarized in Table 6-4. This shows the combined cumulative and proposed project contribution to the V/C at each location, and also lists the project-only contribution. The results show that freeway volumes for the cumulative setting can be carried by the planned freeway system in this area within the LOS concept criteria (V/C , 1.25) except for I-5 south of SR-14.

Table 6-4

FREEWAY AND EXPRESSWAY LONG-RANGE VOLUME SUMMARY - CUMULATIVE PROJECTS

LINK #/LOCATION*	LANES	CAPACITY	NO-PROJECT		WITH-PROJECT		COMBINED PROJ. CONTR.	PROJ. CONTR.
			VOL	V/C	WITH CUMULATIVE VOL	V/C		
I. CITY CIRCULATION ELEMENT NETWORK								
45. SR-126 w/o Potrero Cyn	6	54,000	38,000	.70	44,000	.81	.11	.00
46. SR-126 w/o Chiquito Cyn	6	84,000	34,000	.40	54,000	.64	.24	.00
47. SR-126 e/o Chiquito Cyn	6	84,000	39,000	.46	71,000	.85	.39	.00
48. SR-126 w/o Commerce Cnt Dr	6	84,000	37,000	.44	75,000	.89	.45	.00
49. SR-126 w/o I-5	8	112,000	62,000	.55	93,000	.83	.28	.00
200. I-5 n/o SR-126	10	225,000	162,000	.72	168,000	.75	.03	.00
201. I-5 s/o Newhall Ranch Rd	10	225,000	164,000	.73	171,000	.76	.03	.00
202. I-5 s/o Magic Mountain	10	225,000	172,000	.76	180,000	.80	.04	.00
203. I-5 s/o Valencia	10	225,000	197,000	.88	205,000	.91	.03	.00
204. I-5 s/o McBean	10	225,000	189,000	.84	200,000	.89	.05	.00
205. I-5 s/o Lyons	10	225,000	188,000	.84	203,000	.90	.06	.00
206. SR-14 e/o San Fernando	10	225,000	183,000	.81	191,000	.85	.04	.00
210. SR-14 e/o I-5	10	225,000	203,000	.90	213,000	.95	.05	.00
211. I-5 n/o SR-14	10	225,000	200,000	.89	215,000	.96	.07	.00
212. I-5 s/o SR-14	14	315,000	393,000	1.25	412,000	1.31	.06	.00

(Continued)

Table 6-4 (cont)

FREEWAY AND EXPRESSWAY LONG-RANGE VOLUME SUMMARY - CUMULATIVE PROJECTS

LINK #/LOCATION*	LANES	CAPACITY	NO-PROJECT		WITH-PROJECT		COMBINED PROJ. CONTR.	PROJ. CONTR.	
			VOL	V/C	WITH CUMULATIVE VOL	V/C			
II. NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK									
45. SR-126 w/o Potrero Cyn	6	54,000	38,000	.70	44,000	.81	.11	.00	
46. SR-126 w/o Chiquito Cyn	6	84,000	34,000	.40	54,000	.64	.24	.00	
47. SR-126 e/o Chiquito Cyn	6	84,000	39,000	.46	71,000	.85	.39	.00	
48. SR-126 w/o Commerce Cnt Dr	6	84,000	37,000	.44	74,000	.88	.44	.00	
49. SR-126 w/o I-5	8	112,000	62,000	.55	92,000	.82	.27	.00	
200. I-5 n/o SR-126	10	225,000	162,000	.72	167,000	.74	.02	.00	
201. I-5 s/o Newhall Ranch Rd	10	225,000	162,000	.72	169,000	.75	.03	.00	
202. I-5 s/o Magic Mountain	10	225,000	171,000	.76	178,000	.79	.03	.00	
203. I-5 s/o Valencia	10	225,000	195,000	.87	204,000	.91	.04	.00	
204. I-5 s/o McBean	10	225,000	188,000	.84	198,000	.88	.04	.00	
205. I-5 s/o Lyons	10	225,000	188,000	.84	200,000	.89	.05	.00	
206. SR-14 e/o San Fernando	10	225,000	183,000	.81	190,000	.84	.03	.00	
210. SR-14 e/o I-5	10	225,000	204,000	.91	211,000	.94	.03	.00	
211. I-5 n/o SR-14	10	225,000	200,000	.89	212,000	.94	.05	.00	
212. I-5 s/o SR-14	14	315,000	393,000	1.25	412,000	1.31	.06	.00	

Note: The 10-lanes shown for I-5 north of SR-14 include eight general purpose lanes and two HOV lanes. The 14 lanes shown for I-5 south of SR-14 include 12 general purpose lanes and two HOV lanes. The Caltrans route concept report also includes truck lanes, and those are included in the capacities listed above.

* A link location map can be found in Appendix C

Chapter 7.0

SPECIAL ISSUES

This chapter discusses several special issues related to the Newhall Ranch project. The phasing of the Chiquito Canyon Landfill, Travel Village Access, and the I-5 High Occupancy Vehicle (HOV) Lanes are discussed.

CHIQUITA CANYON LANDFILL

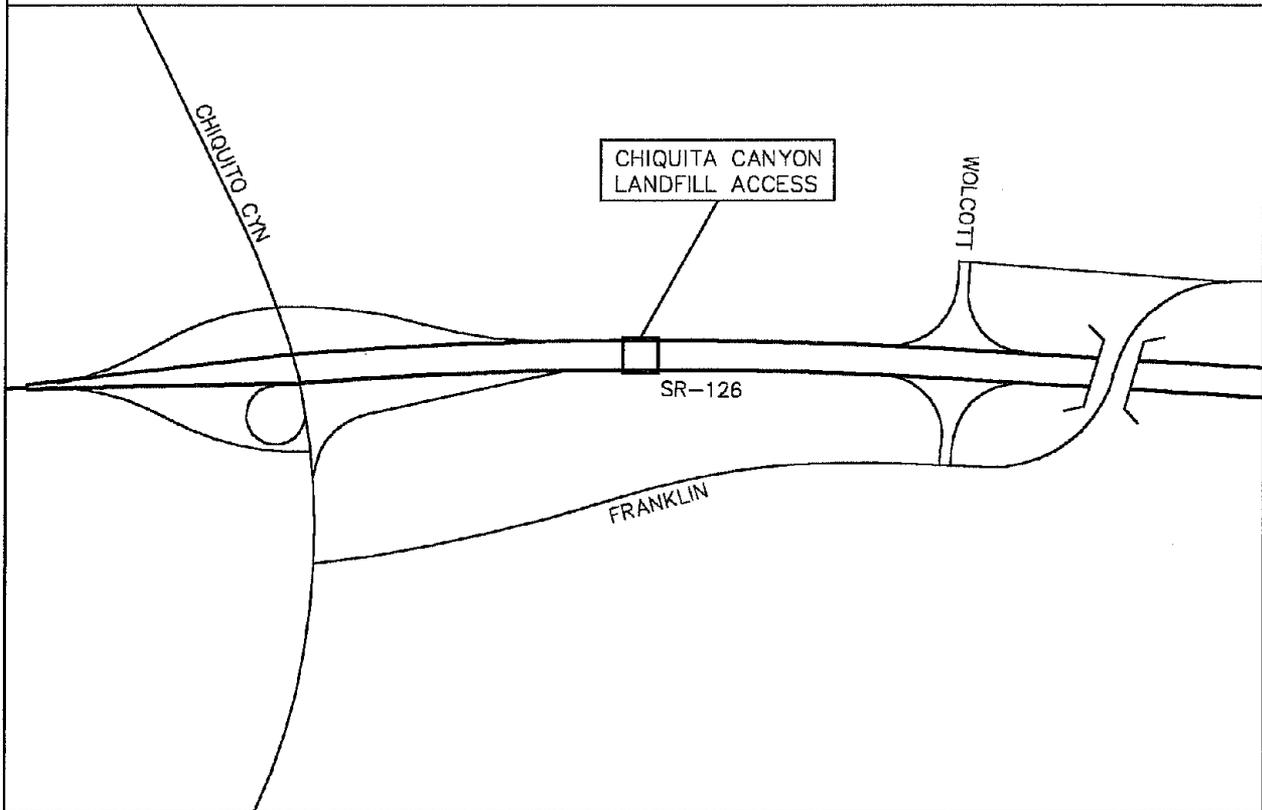
The Chiquita Canyon Landfill is located east of Chiquito Canyon Road and north of SR-126. It is currently operational, taking access from SR-126. The Landfill has prepared an EIR for an expansion of the landfill operation, which could significantly extend the operational life of the landfill (to perhaps 20 years). Without the expansion, the landfill is due to close in 1997.

The Newhall Ranch project is a long-range plan with an estimated 25-30 year absorption. If the landfill is still operational at the time the project would need to complete the SR-126 expressway section, then the landfill can continue to obtain access via an at-grade intersection with SR-126. Such an intersection would be consistent with expressway status, which seeks to minimize access, but does allow for a limited number of at-grade intersections provided they can operate at an acceptable level of service.

To verify the level of service adequacy, a long-range analysis was made for the landfill access point as an at-grade intersection. The results are illustrated in Figure 7-1. Landfill volumes shown here are based on the maximum development scenario of 10,000 tons per day, which has a project trip generation of 3,936 vehicles per day (passenger car equivalents). Using a peak hour factor of 10 percent and representative directionality, peak hour volumes were derived and applied into the thru-traffic volumes on SR-126.

As can be seen from the long-range ICU values, the landfill access can operate as an at-grade intersection if four thru-lanes in each direction are provided on SR-126. Since the long-range plan

LANDFILL ACCESS LOCATION



AM PEAK HOUR	LANE CONFIGURATIONS				
<p>Diagram showing traffic volumes for the AM Peak Hour. On SR-126, there are 20 vehicles in each direction. From Chiquita Canyon, there are 180 vehicles. The total volume for the intersection is 3389.</p>	<p>Diagram showing lane configurations for the AM Peak Hour. It illustrates the flow of traffic from Chiquita Canyon onto SR-126 and the flow of traffic along SR-126.</p>				
PM PEAK HOUR	ICU CALCULATIONS				
<p>Diagram showing traffic volumes for the PM Peak Hour. On SR-126, there are 20 vehicles in each direction. From Chiquita Canyon, there are 180 vehicles. The total volume for the intersection is 2583.</p>	<table border="1"> <tr> <td>AM PEAK HOUR</td> <td>.59</td> </tr> <tr> <td>PM PEAK HOUR</td> <td>.57</td> </tr> </table>	AM PEAK HOUR	.59	PM PEAK HOUR	.57
AM PEAK HOUR	.59				
PM PEAK HOUR	.57				

Figure 7-1
SR-126/CHIQUITA CANYON LANDFILL INTERSECTION

is for this section of roadway to be a six-lane expressway, some local flaring at the intersection would be necessary to accomplish this.

TRAVEL VILLAGE

The Travel Village recreational accommodation facility currently takes access from the SR-126. In Chapter 5.0 in the discussion on SR-126/Commerce Center Drive, potential schemes were presented which would provide future access off Commerce Center Drive when the SR-126 is expanded to an expressway. Alternatively, a signalized at-grade intersection could be provided.

An analysis of the signalized intersection option gives the following long-range ICU values:

AM	.68
PM	.65

To achieve these ICU values, SR-126 would require local flaring to four lanes in each direction, similar to that shown for the Chiquita Canyon Landfill intersection.

I-5 HOV LANES

The freeway capacity analysis in Chapter 4.0 assumed that the I-5 would be expanded from an eight-lane facility to a 10-lane facility with the provision of HOV lanes. Truck lanes would also be added as noted in the Interstate 5 Widening Status discussion in Chapter 4.0, the Route Concept Report for I-5 indicates the need for the HOV lanes, but the widening project is not currently listed in the Los Angeles County Metropolitan Transportation Authority's (MTA) 20-year long-range transportation plan.

The Route Concept Report describes an operating deficiency as when the projected LOS falls below the concept LOS. The concept LOS for the I-5 is F0 (V/C between 1.01 - 1.25). Table 7-1 shows the results of the capacity analysis without the HOV lanes. As shown, only one location, I-5 south of SR-14, exceeds the concept LOS (V/C greater than 1.25) and is considered a significant

Table 7-1

**I-5 FREEWAY CAPACITY ANALYSIS
WITHOUT HOV LANES**

LOCATION	LANES	CAPACITY	-- NO-PROJECT --		-- WITH PROJECT --	
			VOLUME	V/C	VOLUME	V/C
I. CITY CIRCULATION ELEMENT NETWORK						
200. I-5 n/o SR-126	8	180,000	162,000	.90	166,000	.92
201. I-5 s/o Newhall Ranch Rd	8	180,000	164,000	.91	166,000	.92
202. I-5 s/o Magic Mountain Pkwy	8	180,000	172,000	.96	177,000	.98
203. I-5 s/o Valencia	8	180,000	197,000	1.09	205,000	1.14
204. I-5 s/o McBean	8	180,000	189,000	1.05	198,000	1.10
205. I-5 s/o Lyons	8	180,000	188,000	1.04	201,000	1.12
211. I-5 n/o SR-14	8	180,000	200,000	1.11	213,000	1.18
212. I-5 s/o SR-14	12	270,000	393,000	1.46	411,000	1.52
II. NO AVENUE TIBBITTS BRIDGE ALTERNATIVE NETWORK						
200. I-5 n/o SR-126	8	180,000	162,000	.90	165,000	.92
201. I-5 s/o Newhall Ranch Rd	8	180,000	162,000	.90	165,000	.92
202. I-5 s/o Magic Mountain Pkwy	8	180,000	171,000	.95	175,000	.97
203. I-5 s/o Valencia	8	180,000	195,000	1.08	203,000	1.13
204. I-5 s/o McBean	8	180,000	188,000	1.04	197,000	1.09
205. I-5 s/o Lyons	8	180,000	188,000	1.04	199,000	1.11
211. I-5 n/o SR-14	8	180,000	200,000	1.11	212,000	1.18
212. I-5 s/o SR-14	12	270,000	393,000	1.46	411,000	1.52

impact under this methodology. The CMP uses a V/C greater than 1.00 criteria to evaluate impacts, and under that criteria, the project would have a significant impact on I-5 from just south of SR-14 north to Valencia Boulevard.

Appendix A

INTERSECTION

CAPACITY UTILIZATION

Peak hour intersection volume/capacity ratios are calculated by means of intersection capacity utilization (ICU) values. ICU calculations were performed for the intersections shown in Figure A-1. For simplicity, signalization is assumed at each intersection. Precise ICU calculations of existing non-signalized intersections would require a more detailed analysis.

The procedure is based on the critical movement methodology, and shows the amount of capacity utilized by each critical move. A capacity of 1600 vehicles per hour (VPH) per lane is assumed (using 2,800 VPH for double lefts) together with a .10 clearance interval.

The methodology also incorporates a check for right-turn capacity utilization. Both right-turn-on-green (RTOG) and right-turn-on-red (RTOR) capacity availability are calculated and checked against the total right-turn capacity need. If insufficient capacity is available, then an adjustment is made to the total capacity utilization value. The following example shows how this adjustment is made.

Example For Northbound Right

1. Right-Turn-On-Green (RTOG)

If NBT is critical move, then:

$$\text{RTOG} = \text{V/C (NBT)}$$

Otherwise,

$$\text{RTOG} = \text{V/C (NBL)} + \text{V/C (SBT)} - \text{V/C (SBL)}$$

2. Right-Turn-On-Red (RTOR)

If WBL is critical move, then:

$$\text{RTOR} = \text{V/C (WBL)}$$

Otherwise,

$$\text{RTOR} = \text{V/C (EBL)} + \text{V/C (WBT)} - \text{V/C (EBT)}$$

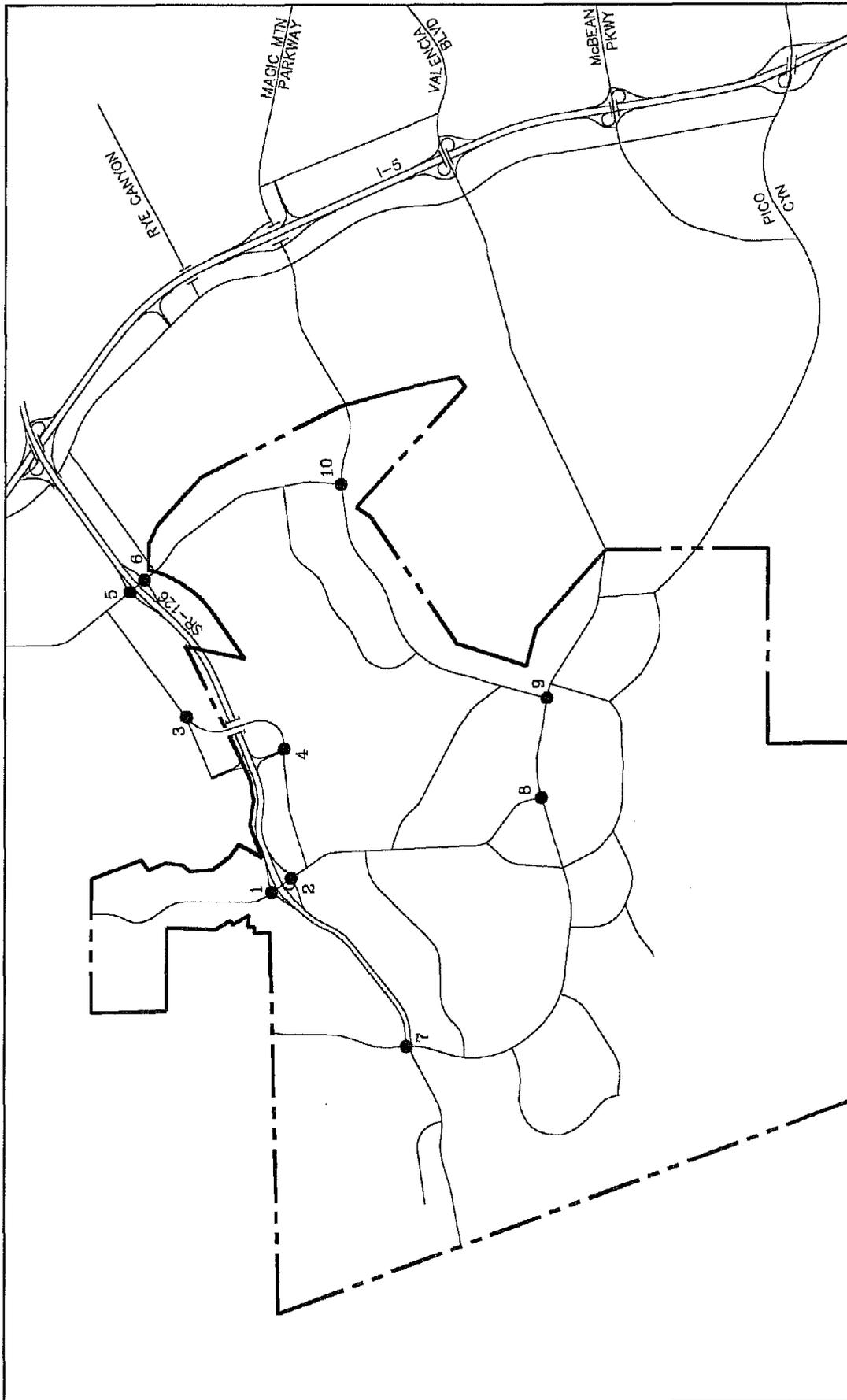


Figure A-1
 MAJOR INTERSECTION LOCATIONS

3. Right-Turn Overlap Adjustment

If the northbound right is assumed to overlap with the adjacent westbound left, adjustments to the RTOG and RTOR values are made as follows:

$$\begin{aligned} \text{RTOG} &= \text{RTOG} + \text{V/C (WBL)} \\ \text{RTOR} &= \text{RTOR} - \text{V/C (WBL)} \end{aligned}$$

4. Total Right-Turn Capacity (RTC) Availability For NBR

$$\begin{aligned} \text{RTC} &= \text{RTOG} + \text{factor} \times \text{RTOR} \\ \text{Where factor} &= \text{RTOR saturation flow factor (75\%)} \end{aligned}$$

Right-turn adjustment is then as follows: $\text{Additional ICU} = \text{V/C (NBR)} - \text{RTC}$

A zero or negative value indicates that adequate capacity is available and no adjustment is necessary. A positive value indicates that the available RTOR and RTOG capacity does not adequately accommodate the right-turn V/C, therefore the right-turn is essentially considered to be a critical movement. In such cases, the right-turn adjustment is noted on the ICU worksheet and it is included in the total capacity utilization value. When it is determined that a right-turn adjustment is required for more than one right-turn movement, the word "multi" is printed on the worksheet instead of an actual right-turn movement reference, and the right-turn adjustments are cumulatively added to the total capacity utilization value. In such cases, further operational evaluation is typically carried out to determine if under actual operational conditions, the critical right-turns would operate simultaneously, and therefore a right-turn adjustment credit should be applied.

APPLICATION OF ICU VALUES

The ICU calculations summarized in this appendix use raw model numbers based on existing travel behavior and transportation system management. Considerable efforts are currently being made by all levels of Government to increase system efficiency by a variety of means. At the Federal level the Intermodal Surface Transportation Efficiency Act (ISTEA) provides funding for a broad based program of transportation system improvements. Regional and local jurisdictions are in turn responding to this Federal mandate, and are adding their own strategies for achieving efficiency objectives.

Two readily identifiable categories for change are in the area of demand management and system efficiency. The first seeks to reduce peak hour demand, and many programs to achieve this objective are in operation or in the early stages of implementation. The second involves the use of various types of technology to improve traffic flow, particularly on a systemwide basis. Advanced Transportation Management Systems (ATMS) and Intelligent Vehicle Highway System (IVHS) are just two examples of the strategies currently being researched and implemented.

In accordance with the objectives of these directions and actions, it is reasonable to assume that both demand reduction and system effectiveness changes will be achieved. While proven quantitative results are not yet forthcoming, ranges of 10 to 20 percent are frequently referred to as realistic goals for peak hour improvements. For example, actual "before and after" evaluation of implementation of signal coordination have demonstrated that a 10-20 percent improvement in capacity is attainable. Likewise the Highway Capacity Manual (HCM) in its 1995 revision has recognized that roadway capacity can and has been improved through its own increase in lane capacities from a previous 1800 vplph to the 1900 vplph currently recommended.

For this analysis, a conservative 10 percent achievement has been assumed, and has been applied by reducing the ICUs by that amount. At the time when more information becomes available, a greater reduction may be appropriate, but in the meantime, this assumption acknowledges the considerable efforts currently underway to achieve these important objectives of demand reduction and system efficiency.

1. Chiquito Cyn & SR-126 WB Ramp

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	220	.14*	136	.09*
NBT	2	3200	575	.18	435	.14
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	369	.10*	1039	.23*
SBR	0	0	90		50	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	2880	21	.01*	799	.28*
WBT	0	0	0		0	
WBR	1	1600	534	.33	228	.14
Right Turn Adjustment			WBR	.27*		
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .62 .70

Alternative Network - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1600	227	.14*	133	.08*
NBT	2	3200	571	.18	438	.14
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	362	.09*	1039	.23*
SBR	0	0	91		50	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	2880	21	.01*	831	.29*
WBT	0	0	0		0	
WBR	1	1600	547	.34	222	.14
Right Turn Adjustment			WBR	.29*		
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .63 .70

2. Chiquito Cyn & SR-126 EB Ramp

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	2	3200	785	.25*	453	.14
NBR	f		924		5	
SBL	0	0	0		0	
SBT	3	4800	186	.06	1258	.38*
SBR	0	0	205	.13	580	
EBL	1	1600	9	.01*	118	.07*
EBT	0	0	0		0	
EBR	1	1600	101	.06	241	.15
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.08*
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.36		.63

Alternative Network - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	2	3200	790	.25*	455	.14
NBR	f		915		5	
SBL	0	0	0		0	
SBT	3	4800	183	.06	1291	.39*
SBR	0	0	201	.13	579	
EBL	1	1600	9	.01*	116	.07*
EBT	0	0	0		0	
EBR	1	1600	102	.06	240	.15
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.08*
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.36		.64

1-2. Chiquito Cyn & SR-126 (at Grade)

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	220	.14	136	.09
NBT	2	3200	565	.18*	317	.10*
NBR	f		924		5	
SBL	2	2880	205	.07*	580	.20*
SBT	2	3200	164	.05	459	.14
SBR	1	1600	90	.06	50	.03
EBL	2	2880	9	.00	118	.04
EBT	3	4800	2280	.48*	2018	.42*
EBR	1	1600	101	.06	241	.15
WBL	2	2880	21	.01*	799	.28*
WBT	3	4800	1521	.32	2354	.49
WBR	1	1600	534	.33	228	.14
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.84	1.10	

3. Franklin & SR-126 WB Ramp

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	2	3200	1423	.44*	560	.18
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	149	.05	1150	.36*
SBR	1	1600	124	.08	416	.26
EBL	1	1600	155	.10*	8	.01*
EBT	0	0	0		0	
EBR	f		342		333	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .64 .47

Alternative Network - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	2	3200	1455	.45*	567	.18
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3200	153	.05	1081	.34*
SBR	1	1600	128	.08	492	.31
EBL	1	1600	162	.10*	7	.00
EBT	0	0	0		0	
EBR	f		348		370	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .65 .44

4. Franklin & SR-126 EB Ramp

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	2880	607	.21*	241	.08*
SBT	0	0	0		0	
SBR	1	1600	0	.00	0	.00
EBL	2	2880	580	.20*	616	.21*
EBT	2	3200	815	.25	319	.10
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	491	.15*	1290	.46*
WBR	0	0	0		193	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .66 .85

Alternative Network - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	2880	611	.21*	243	.08*
SBT	0	0	0		0	
SBR	1	1600	0	.00	0	.00
EBL	2	2880	550	.19*	608	.21*
EBT	2	3200	844	.26	342	.11
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	501	.16*	1256	.45*
WBR	0	0	0		195	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .66 .84

3-4. Wolcott & SR-126 (at Grade)

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	5	.00	5	.00
NBT	2	3200	815	.25*	319	.10
NBR	1	1600	580	.36	616	.39
SBL	1	1600	5	.00	193	.12
SBT	2	3200	149	.05	1150	.36*
SBR	1	1600	124	.08	416	.26
EBL	2	2880	607	.21	241	.08*
EBT	3	4800	2801	.58*	2355	.49
EBR	0	0	5		5	
WBL	2	2880	342	.12*	333	.12
WBT	3	4800	1952	.44	2964	.62*
WBR	0	0	155		8	
Right Turn Adjustment			NBR	.02*		
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION			1.07		1.16	

5. Commerce Ctr & SR-126 WB Rmps

City Circulation Element - w/o Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	2880	57	.02	64	.02*
NBT	3	4800	1229	.26*	108	.02
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	412	.09	2317	.48*
SBR	1	1600	74	.05	110	.07
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	2880	0	.00	8	.00
WBT	0	0	0		0	
WBR	f		2290		907	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .36 .60

Alternative Network - w/o Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	2880	65	.02	70	.02*
NBT	3	4800	1343	.28*	112	.02
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	426	.09	2356	.49*
SBR	1	1600	67	.04	101	.06
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	2880	0	.00	8	.00
WBT	0	0	0		0	
WBR	f		2218		909	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .38 .61

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	2880	227	.08	284	.10*
NBT	3	4800	1683	.35*	436	.09
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	573	.12	1999	.42*
SBR	1	1600	106	.07	467	.29
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	2880	75	.03*	382	.13*
WBT	0	0	0		0	
WBR	f		1705		708	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .48 .75

Alternative Network - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	2880	252	.09	285	.10*
NBT	3	4800	1651	.34*	460	.10
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	4800	561	.12	2027	.42*
SBR	1	1600	134	.08	565	.35
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	2880	81	.03*	366	.13*
WBT	0	0	0		0	
WBR	f		1718		690	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .47 .75

City Circulation Element - w/o Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1261	.26*	159	.03*
NBR	1	1600	15	.01	3	.00
SBL	2	2880	321	.11*	1354	.47*
SBT	3	4800	90	.02	970	.20
SBR	0	0	0		0	
EBL	2	2880	24	.01*	13	.00
EBT	0	0	0		0	
EBR	1	1600	181	.11	31	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .48 .60

Alternative Network - w/o Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1397	.29*	167	.03*
NBR	1	1600	15	.01	3	.00
SBL	2	2880	321	.11*	1291	.45*
SBT	3	4800	104	.02	1073	.22
SBR	0	0	0		0	
EBL	2	2880	13	.00	13	.00
EBT	0	0	0		0	
EBR	1	1600	118	.07	38	.02
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .50 .58

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1638	.34*	703	.15*
NBR	1	1600	428	.27	292	.18
SBL	2	2880	295	.10*	1002	.35*
SBT	3	4800	352	.07	1379	.29
SBR	0	0	0		0	
EBL	2	2880	272	.09*	16	.01*
EBT	0	0	0		0	
EBR	1	1600	325	.20	285	.18
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					Multi	.03*
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .63 .64

Alternative Network - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	4800	1691	.35*	727	.15*
NBR	1	1600	499	.31	293	.18
SBL	2	2880	284	.10*	969	.34*
SBT	3	4800	357	.07	1426	.30
SBR	0	0	0		0	
EBL	2	2880	211	.07*	15	.01*
EBT	0	0	0		0	
EBR	1	1600	434	.27	286	.18
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					Multi	.05*
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .62 .65

7. San Martinez Grande & SR-126

City Circulation Element - w/o Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	2880	786	.27*	314	.11*
NBT	1	1600	6	.00	17	.01
NBR	f		116		2	
SBL	2	2880	50	.02	27	.01
SBT	2	3200	13	.00*	11	.00*
SBR	0	0	1		3	
EBL	1	1600	2	.00	3	.00
EBT	3	4800	1503	.31*	1163	.24
EBR	1	1600	263	.16	553	.35
WBL	2	2880	13	.00	149	.05
WBT	3	4800	786	.16	1506	.31*
WBR	1	1600	11	.01	45	.03
Right Turn Adjustment					EBR	.01*
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.68		.53

Alternative Network - w/o Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	2880	768	.27*	268	.09*
NBT	1	1600	4	.00	17	.01
NBR	f		116		20	
SBL	2	2880	50	.02	27	.01
SBT	2	3200	13	.00*	11	.00*
SBR	0	0	1		3	
EBL	1	1600	2	.00	3	.00
EBT	3	4800	1503	.31*	1163	.24
EBR	1	1600	263	.16	533	.33
WBL	2	2880	13	.00	134	.05
WBT	3	4800	807	.17	1546	.32*
WBR	1	1600	8	.01	44	.03
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.68		.51

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	2880	303	.11*	351	.12*
NBT	1	1600	162	.10	177	.11
NBR	f		580		427	
SBL	2	2880	184	.06	208	.07
SBT	2	3200	416	.15*	246	.13*
SBR	0	0	67		155	
EBL	1	1600	158	.10*	36	.02
EBT	3	4800	1625	.34	1742	.36*
EBR	1	1600	153	.10	297	.19
WBL	2	2880	201	.07	497	.17*
WBT	3	4800	1562	.33*	1553	.32
WBR	1	1600	69	.04	488	.31
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.79		.88

Alternative Network - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	2880	343	.12*	257	.09*
NBT	1	1600	129	.08	179	.11
NBR	f		559		523	
SBL	2	2880	206	.07	73	.03
SBT	2	3200	450	.14*	273	.17*
SBR	0	0	11		260	
EBL	1	1600	175	.11*	38	.02
EBT	3	4800	1649	.34	1729	.36*
EBR	1	1600	112	.07	307	.19
WBL	2	2880	203	.07	520	.18*
WBT	3	4800	1579	.33*	1544	.32
WBR	1	1600	86	.05	498	.31
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.80		.90

8. Long Canyon & Potrero Cyn

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	2880	686	.24*	571	.20*
SBT	0	0	0		0	
SBR	1	1600	43	.03	43	.03
EBL	1	1600	43	.03	43	.03*
EBT	2	3200	1160	.36*	950	.30
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3200	582	.18	970	.30*
WBR	f		620		1023	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.70		.63

9. Magic Mtn & Potrero Cyn

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	2880	427	.15*	404	.14*
SBT	0	0	0		0	
SBR	2	3200	431	.13	852	.27
EBL	2	2880	727	.25	628	.22*
EBT	2	3200	1416	.44*	1065	.33
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	4800	777	.16	1433	.30*
WBR	f		431		282	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.69		.76

10. Commerce Ctr & Magic Mtn

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	3	4320	1397	.32*	1183	.27*
SBT	0	0	0		0	
SBR	1	1600	406	.25	782	.49
EBL	2	2880	741	.26*	426	.15*
EBT	3	4800	1003	.21	754	.16
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	4800	570	.12*	1358	.28*
WBR	f		778		1367	
Right Turn Adjustment					SBR	.11*
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.80		.91

11. I-5 SB Ramps & SR-126

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2.5		504	.16*	863	
SBT	0	6400	0		0	.19*
SBR	1.5		565	.18	370	
EBL	0	0	0		0	
EBT	4	6400	2139	.33	2749	.43
EBR	f		1366		1409	
WBL	0	0	0		0	
WBT	4	6400	3332	.52*	3277	.51*
WBR	1	1600	7	.00	31	.02
Right Turn Adjustment			SBR	.02*		
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .80 .80

Alternative Network - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2.5		502	.16*	873	.18*
SBT	0	6400	0		0	
SBR	1.5		549	.17	258	.16
EBL	0	0	0		0	
EBT	4	6400	2153	.34	2652	.41
EBR	f		1343		1416	
WBL	0	0	0		0	
WBT	4	6400	3367	.53*	3267	.51*
WBR	1	1600	8	.01	35	.02
Right Turn Adjustment			SBR	.01*		
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .80 .79

12. I-5 NB Ramps & SR-126

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	3	4320	1609	.37*	1408	.33*
NBT	0	0	0		0	
NBR	1	1600	11	.01	5	.00
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6400	1917	.30*	2877	.45*
EBR	f		725		736	
WBL	0	0	0		0	
WBT	4	6400	1731	.27	1900	.30
WBR	f		957		1248	
Clearance Interval				.10*		.10*

Alternative Network - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	3	4320	1533	.35*	1403	.32*
NBT	0	0	0		0	
NBR	1	1600	210	.13	4	.00
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6400	1932	.30*	2802	.44*
EBR	f		722		720	
WBL	0	0	0		0	
WBT	4	6400	1840	.29	1900	.30
WBR	f		873		1214	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .77 .88

TOTAL CAPACITY UTILIZATION .75 .86

13. Chiquito & SR-126 (at Grade)

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1600	220	.14	136	.09
NBT	2	3200	565	.18*	317	.10*
NBR	f		924		5	
SBL	2	2880	205	.07*	580	.20*
SBT	2	3200	164	.05	459	.14
SBR	1	1600	90	.06	50	.03
EBL	2	2880	9	.00	118	.04
EBT	3	4800	2280	.48*	2018	.42*
EBR	1	1600	101	.06	241	.15
WBL	2	2880	21	.01*	799	.28*
WBT	3	4800	1521	.32	2354	.49
WBR	1	1600	534	.33	228	.14
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.84		1.10

14. Wolcott & SR-126 (at Grade)

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C
NBL	1	1600	5	.00	5	.00
NBT	2	3200	815	.25*	319	.10
NBR	1	1600	580	.36	616	.39
SBL	1	1600	5	.00	193	.12
SBT	2	3200	149	.05	1150	.36*
SBR	1	1600	124	.08	416	.26
EBL	2	2880	607	.21	241	.08*
EBT	3	4800	2801	.58*	2355	.49
EBR	0	0	5		5	
WBL	2	2880	342	.12*	333	.12
WBT	3	4800	1952	.44	2964	.62*
WBR	0	0	155		8	
Right Turn Adjustment			NBR	.02*		
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION			1.07		1.16	

15. Chiquita Landfill & SR-126

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	2880	180	.06*	180	.06*
SBT	0	0	0		0	
SBR	1	1600	20	.01	20	.01
EBL	1	1600	20	.01	20	.01*
EBT	4	6400	3389	.53*	2583	.40
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	4	6400	1896	.30	3201	.50*
WBR	1	1600	180	.11	180	.11
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .69 .67

16. Travel Village & SR-126

City Circulation Element - with Newhall Ranch						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1600	50	.03*	50	.03*
NBT	0	0	0		0	
NBR	1	1600	210	.13	210	.13
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	4	6400	3336	.52*	3114	.49*
EBR	1	1600	50	.03	50	.03
WBL	1	1600	210	.13*	210	.13*
WBT	4	6400	2399	.37	3255	.51
WBR	0	0	0		0	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.78		.75

Appendix B

NEWHALL RANCH TRAFFIC MODEL

The Newhall Ranch Traffic Model (NRTM) is a detailed local area forecasting procedure used for estimating traffic volumes on the Newhall Ranch project circulation system. This appendix describes the methodology embodied in this traffic model, and summarizes traffic forecast data derived by the model for this proposed Newhall Ranch project.

TRAFFIC MODEL OVERVIEW

The NRTM is based on incremental traffic modeling techniques used for site-specific traffic forecasting requirements. The highway network is represented by a graphical link-node network, which defines the analysis area circulation system. Travel patterns are determined on a zone-to-zone basis, and when applied to the network, produce forecasts of traffic volumes on individual links of the highway system.

The NRTM is essentially a sub-area extraction of the Santa Clarita Valley Consolidated Traffic Model (SCVCTM) developed and maintained jointly by the City of Santa Clarita and the County of Los Angeles. Regional travel patterns from the SCVCTM are incorporated into the incremental model in a manner that provides compatibility with countywide traffic forecasting procedures and with the overall regional data base maintained by the county. Hence, the SCVCTM is essentially the "parent model" for NRTM. Using a special "windowing" technique, trips into and out of the NRTM analysis area are extracted from the SCVCTM, thereby providing the basic trip pattern data needed for the detailed modeling carried out in the NRTM.

The NRTM model area includes the Newhall Ranch project area, and also extends to just east of I-5 so that the traffic model network can incorporate connections to the I-5 freeway (see model area in Figure B-1). For the purposes of traffic modeling work, the analysis area is subdivided into traffic zones. The NRTM utilizes 69 traffic zones, these being defined by subdividing larger zones used in regional traffic forecasting work (see discussion later in this chapter). This system of traffic zones

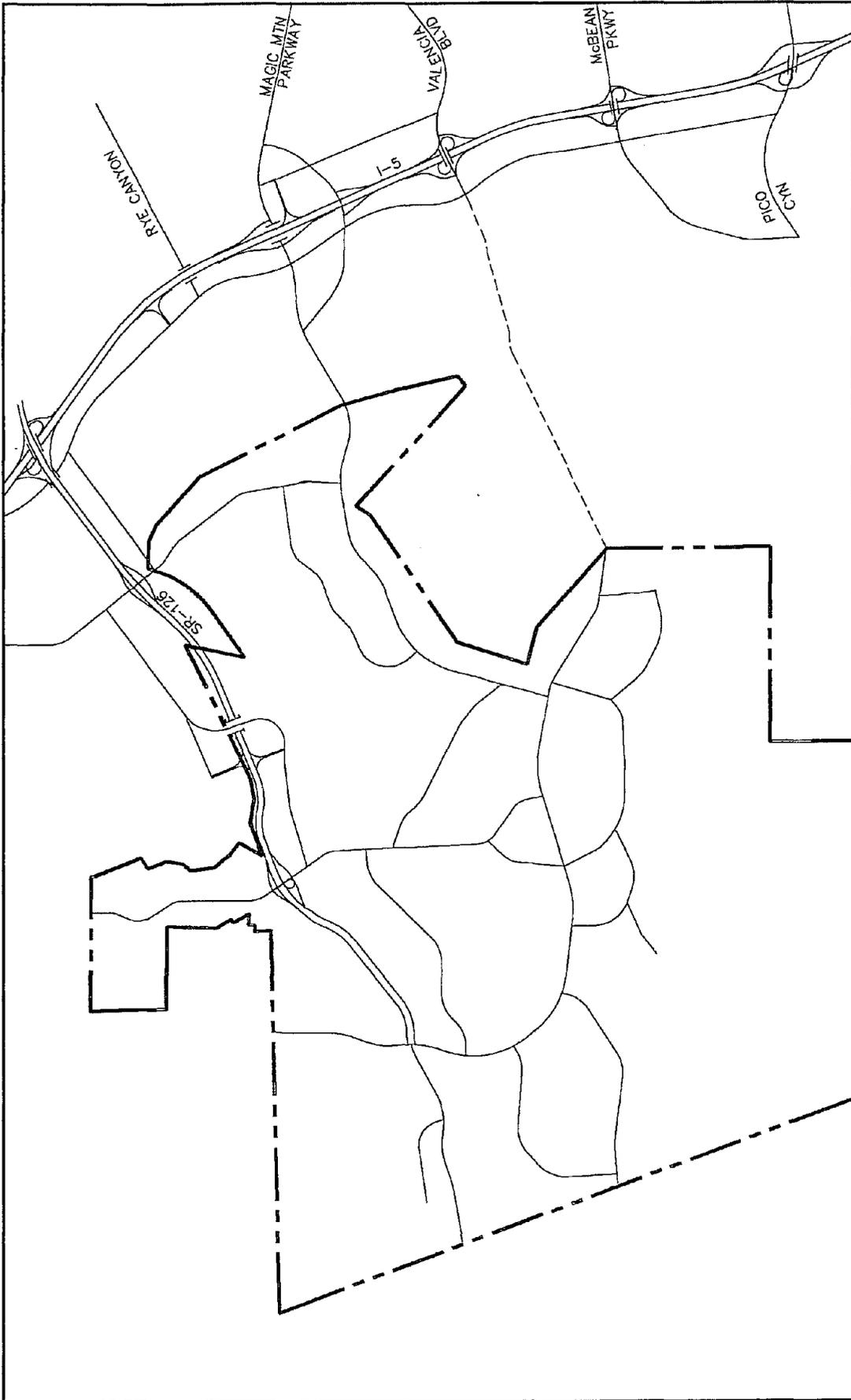


Figure B-1
 NRTM ANALYSIS AREA

forms the geographic base for quantifying the land use data used by the model for producing traffic forecasts.

Locations on the circulation system that are crossed by the analysis area boundary are defined as cordon zones. These are used for incorporating external trips into the modeling process, such trips being extracted from regional traffic forecasts produced by the County of Los Angeles.

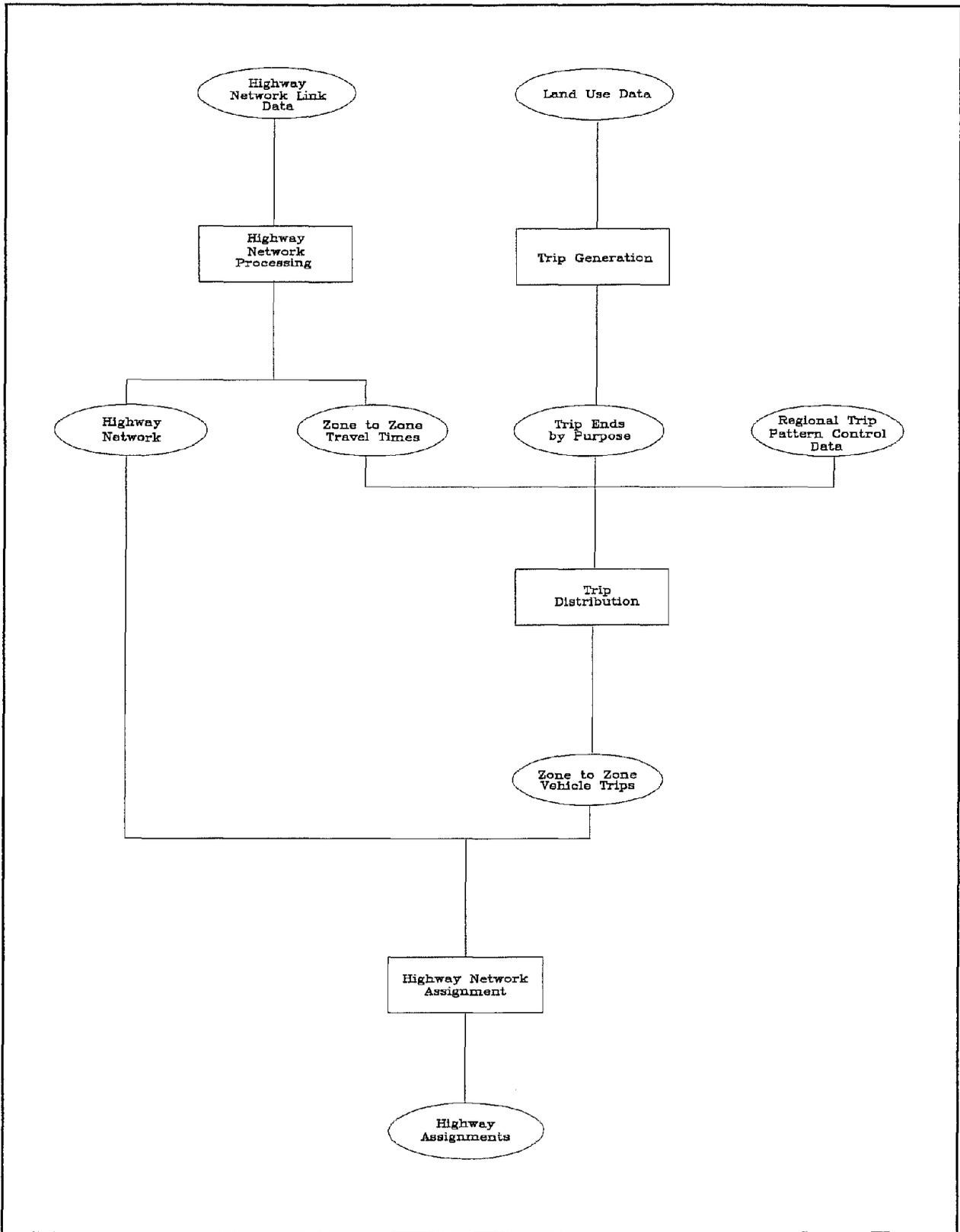
TRAFFIC MODEL DESCRIPTION

The NRTM utilizes detailed network analysis techniques to produce traffic forecasts on the analysis area circulation system. The flow chart in Figure B-2 shows the overall model structure. The trip generation procedure uses land use data specified in terms of floor area by various uses, and numbers of dwelling units by density classification. The trip distribution process involves the preparation of geographically defined travel patterns from the zonal trip generation estimates. The result is a set of zone-to-zone trips for the analysis area. Trip distribution patterns for the NRTM are taken from the SCVCTM parent model, incorporating them into the NRTM by means of cordon-to-internal zone trip patterns. The final part of the forecasting process consists of trip assignment, in which the geographically defined travel patterns are assigned to the highway network. Thus, the assignment component converts the trip tables to traffic volumes on the highway network. Various summary features of the model enable that data to be reviewed and used in peripheral applications such as intersection capacity utilization (ICU) calculations.

The Link-node Network System

Specially coded networks provide descriptions of the highway network in the traffic forecasting area. Coding of geographic link-node networks follows the general methodology used in traffic modeling work, and use the same network definition procedures as the SCVCTM parent model.

The NRTM assignment procedure uses a separate network for each of three time periods; AM peak hour, PM peak hour and off-peak period. Capacity values hence represent the equivalent time represented by the particular time period. For any given application, a speed and capacity table is



LEGEND

○ Input and Output

□ Processing Step

Figure B-2
NRTM MODEL STRUCTURE

used as input to the network processing component of the model. This then establishes the individual speeds and capacities that will be used for the particular analysis application.

Trip Generation and Distribution

Trip generation involves estimating the number of trips generated in each zone in the analysis area. Suitable trip rates are applied to the zonal land use estimates and the resulting trips are used as input to the trip distribution process. The process differs slightly from the SCVCTM in that more land use categories are used, and land use generated trips are directly input to model rather than land use being first converted to socioeconomic data variables and trips generated from the socioeconomic data. The trip generation rates currently being used in the NRTM are listed in Table B-1, and the sources of these rates can be found at the end of this appendix. The NRTM trip distribution is derived from the SCVCTM parent model with internal and external trips being derived in the trip table preparation process. They are in the form of origin-destination trips for the AM peak hour, the PM peak hour, and the off-peak period.

Traffic Assignment

The traffic assignment component of the NRTM assigns the trip tables to the highway network to give link and intersection volumes. The methodology used in the NRTM involves several special procedures that respond to the detailed traffic analysis needs of the sub-area model. These include:

1. The ability to impose differential penalties on intersection turn movements.
2. Adjustment of link speeds in response to volume-to-capacity (V/C) ratios.
3. A multipath incremental capacity restraint loading technique that produces volumes that are responsive to the capacity of the network.

The speed assumptions used in assignment directly influence the volumes on individual links. In the NRTM, the speed assumptions reflect the V/C ratios on individual links. During the assignment procedure, speeds are adjusted according to V/C ratios. Of importance is the fact that the

Table B-1

NRTM TRIP RATE SUMMARY

LAND USE	UNITS	---AM PEAK HOUR---			---PM PEAK HOUR---			ADT
		IN	OUT	TOTAL	IN	OUT	TOTAL	
1. Res - Estate	DU	0.20	0.70	0.90	0.70	0.40	1.10	15.75
2. Res - Low	DU	0.20	0.70	0.90	0.70	0.40	1.10	10.00
3. Res - Low-Medium	DU	0.20	0.65	0.85	0.65	0.40	1.05	9.00
4. Res - Medium	DU	0.20	0.60	0.80	0.60	0.40	1.00	8.60
5. Res - High	DU	0.09	0.42	0.51	0.43	0.20	0.63	6.47
6. Business Park	TSF	1.38	0.24	1.62	0.33	1.15	1.48	10.20
7. Commercial	TSF	0.43	0.18	0.61	1.27	1.44	2.71	68.00
8. Golf Course	ACRE	0.22	0.05	0.27	0.08	0.31	0.39	8.33
9. Lake	ACRE	0.00	0.00	0.00	0.00	0.00	0.00	0.81
10. Elementary School	STU	0.18	0.12	0.30	0.00	0.01	0.01	1.09
11. Intermediate School	STU	0.14	0.09	0.23	0.01	0.01	0.02	1.03
12. High School	STU	0.26	0.14	0.40	0.02	0.02	0.04	1.39
13. Park	ACRE	0.00	0.00	0.00	0.00	0.00	0.00	2.23
14. Office	TSF	1.14	0.15	1.29	0.20	0.97	1.17	11.56

final set of speeds have a predetermined relationship to the assigned link volumes and capacities at the completion of the assignment process.

Figure B-3 shows examples of the speed versus volume-to-capacity ratio relationships used within the assignment procedure. These curves were derived from observed relationships as published in traffic engineering literature such as the "Highway Capacity Manual" and the AASHO urban design manual. While individual free flow speeds vary, the general shape of the volume-to-capacity relationship embodied in these curves is used consistently for all links.

The procedure used to derive the equilibrium speeds is to start the assignment process with the free flow speeds, assuming V/C ratios are zero. The speeds are then adjusted to these curves during successive iterations of the assignment algorithm as described below. The final speeds hence correspond to the final assigned volumes and capacities.

The assignment procedure involves loading the trips during several iterations and then adjusting the speeds after each increment is loaded. New speeds are calculated after each iteration, these being based on the loaded volumes. In calculating the new speeds, the loaded volumes are artificially expanded for the purpose of calculating the applicable V/C ratios. The process is similar to that used in the SCVCTM parent model.

TRAFFIC FORECASTS

A long-range cordon volume summary for the NRTM analysis area is given in Table B-2. Combined with the project trip generation and travel patterns derived from the SCVCTM, this data is used to derive the project area trip distribution.

The long-range circulation system for the Newhall Ranch project is illustrated in Figure B-4 together with the NRTM long-range buildout ADT forecasts. Intersections that are currently defined in the long-range version of the NRTM are depicted in Figure B-5.

FREE
FLOW
SPEED
(mph)

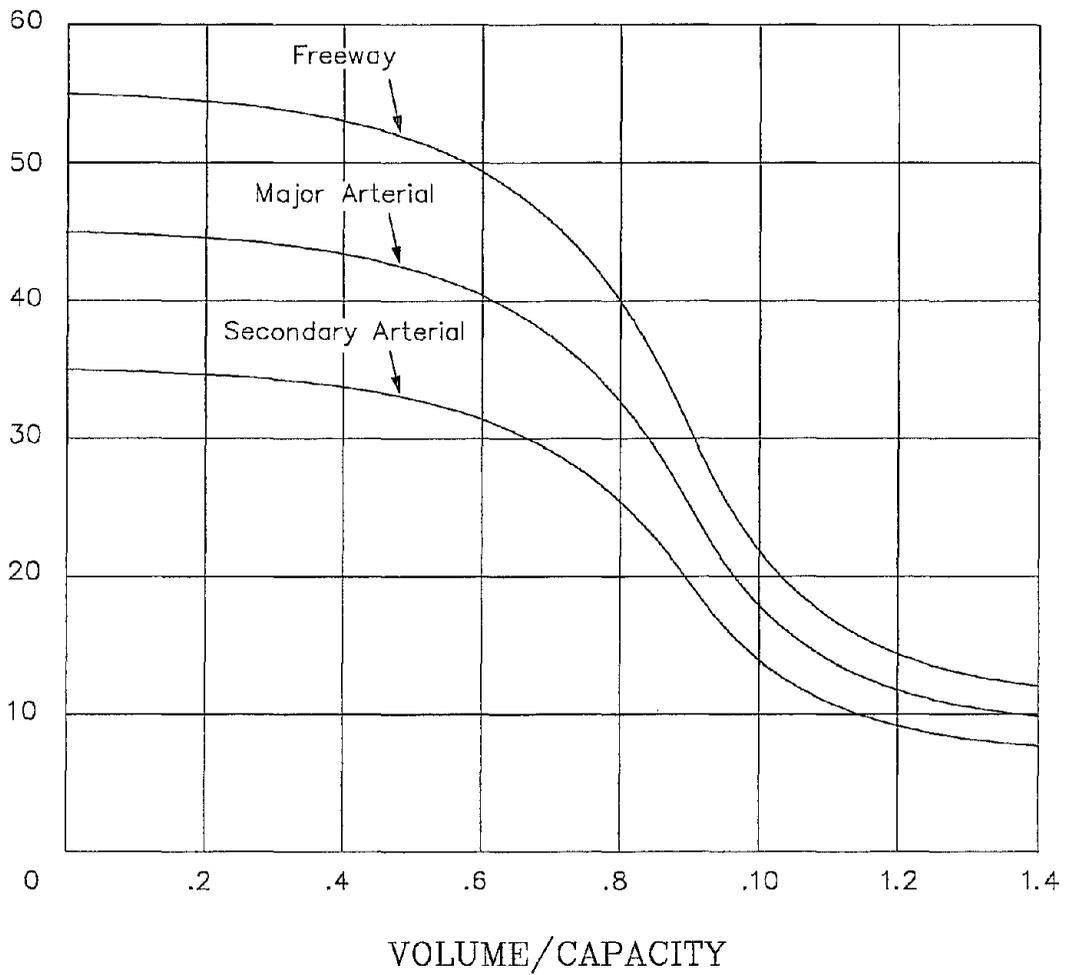
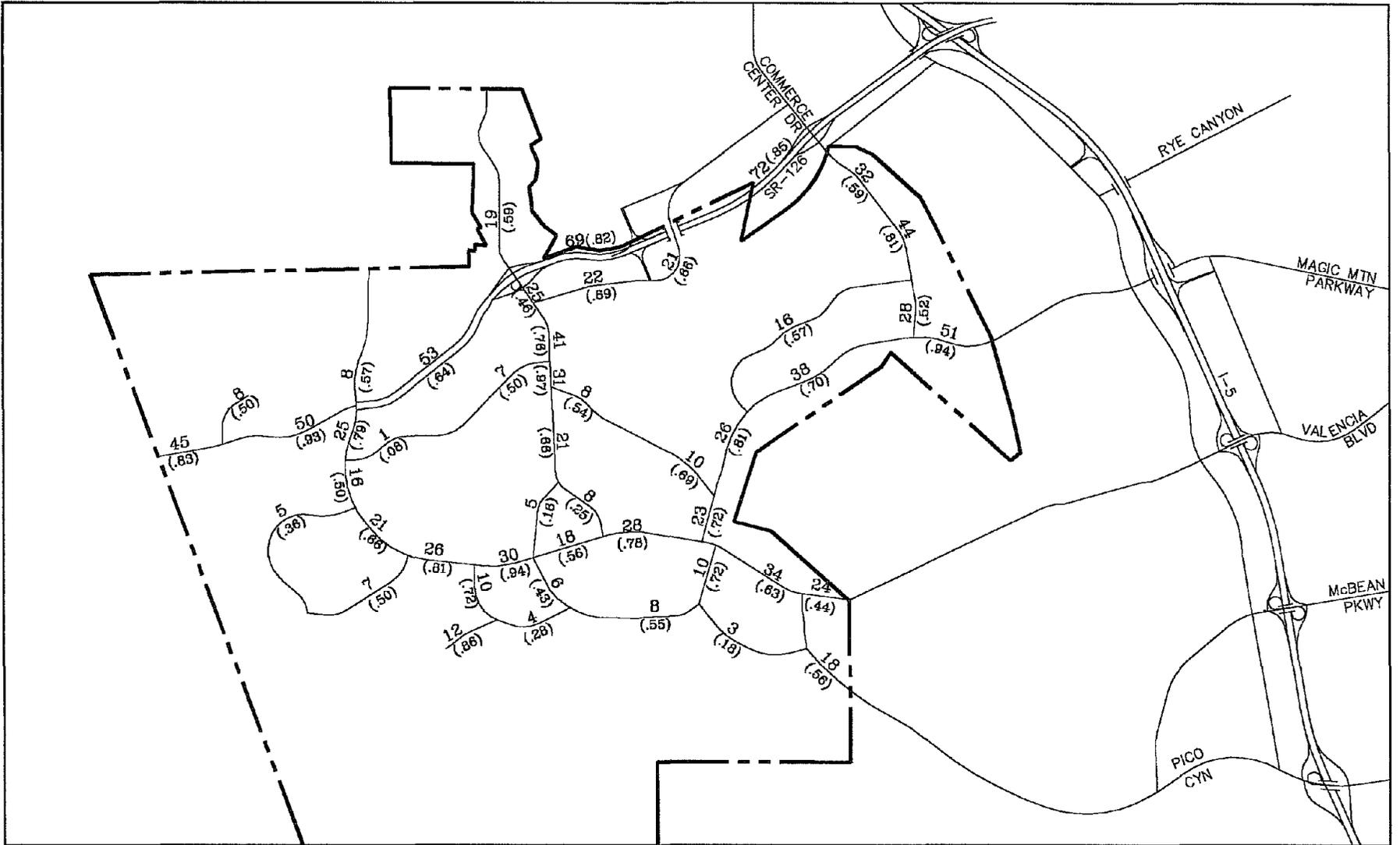


Figure B-3
SPEED - VOLUME/CAPACITY
RELATIONSHIPS

Table B-2

NRTM CORDON SUMMARY

<u>CORDON</u>	<u>NRTM</u>
74. Chiquito Canyon n/o Project Boundary	7,000
75. SR-126 at Los Angeles County Line	13,000
76. Commerce Center Drive n/o Project Boundary	19,000
77. The Old Road n/o SR-126	6,000
78. I-5 n/o SR-126	12,000
79. Newhall Ranch Road e/o I-5	42,000
80. Rye Canyon Road e/o I-5	10,000
81. Magic Mountain Parkway e/o I-5	29,000
82. Valencia Boulevard e/o I-5	21,000
83. McBean Parkway e/o I-5	5,000
84. Lyons Avenue e/o I-5	5,000
85. I-5 s/o Lyons	32,000
86. Franklin e/o I-5	7,000
TOTAL	208,000



LEGEND
XX ADT VOLUME (000s)
(.YY) VOLUME/CAPACITY RATIO (V/C)

Figure B-4
LONG-RANGE ADT VOLUMES (000s)
-PROJECT AREA

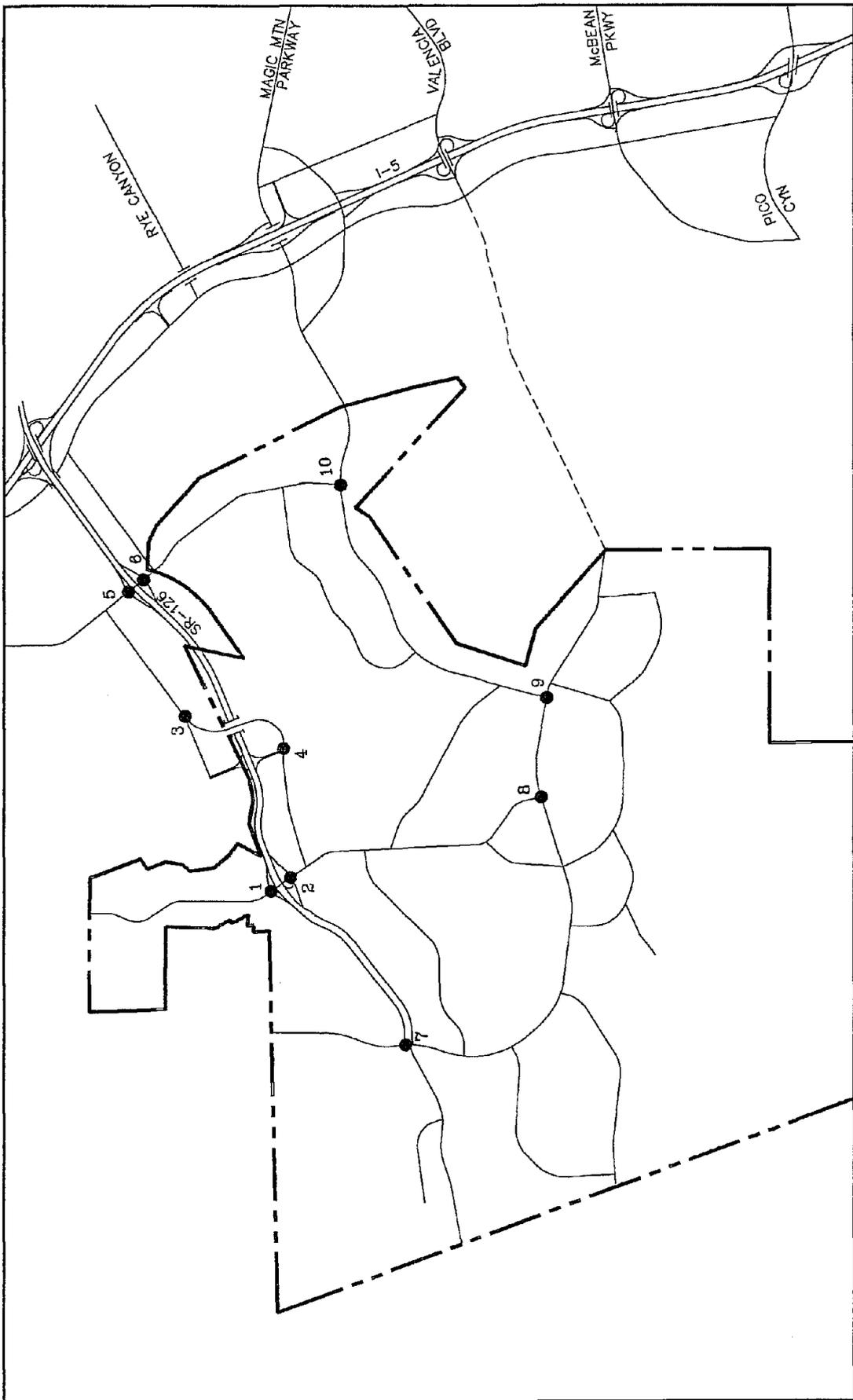


Figure B-5
 MAJOR INTERSECTION LOCATIONS

Appendix C

LINK NUMBERING SYSTEM

The link numbering system used for tabular information in this report was prepared for use with the SCVCTM and allows the direct extraction of forecasts data from that model. Figure C-1 provides a reference map for the numbered links used here.

Appendix D

TRANSIT OPERATOR NOTIFICATION

P 759 800 362



Certified Mail Receipt

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Peter Jacobsen
Metropolitan Water District
Planning Division
P.O. Box 54153
Los Angeles, CA 90054

	\$
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, & Address of Delivery	
TOTAL Postage & Fees	\$ 3.90
Postmark or Date	

PS Form 3800, June 1990

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Peter Jacobsen
Metropolitan Water District
Planning Division
P.O. Box 54153
Los Angeles, CA 90054

4a. Article Number
P759 800 362

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
DEC 30 1991

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

Return Receipt Service

P 759 800 364



Certified Mail Receipt

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to
MTA/Ken Killough

Street & No.

City, State & ZIP Code
194 LA 90053

Postage \$

Certified Fee \$ **1.00**

Special Delivery Fee

Restricted Delivery Fee

Return Receipt Showing to Whom & Date Delivered \$ **1.00**

Return Receipt Showing to Whom, Date, & Address of Delivery

TOTAL Postage & Fees \$ **3.90**

Postmark or Date

PS Form 3800, June 1990

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Metropolitan Transit Authority
Country Wide Planning
P.O. Box 194
Los Angeles, CA 90053
Attn: Mr. Keith Killough

4a. Article Number
P759 800 364

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

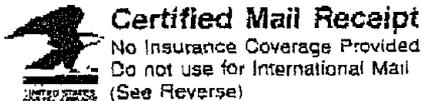
7. Date of Delivery
1-3-94

5. Signature (Addressee)

6. Signature (Agent) **RE**

8. Addressee's Address (Only if requested and fee is paid)

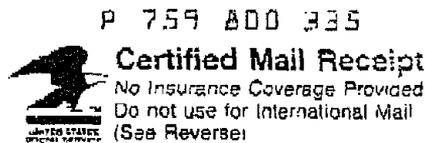
PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT



Metropolitan Transportation Authority
818 West 7th Street
Los Angeles, CA 90017

Postage	\$
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, & Address of Delivery	
TOTAL Postage & Fees	\$ 3.93
Postmark or Date	

PS Form 3800, June 1990



P 759 ADD 335
Southern California Association of Governments
518 W. 7th Street, 12th Floor
Los Angeles, CA 90017
Attn: Eric Roth

Postage	\$
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, & Address of Delivery	
TOTAL Postage & Fees	\$ 3.93
Postmark or Date	

PS Form 3800, June 1990

Is your RETURN ADDRESS completed on the reverse side?

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Metropolitan Transportation Authority
818 West 7th Street
Los Angeles, CA 90017

5. Signature (Addressee)

6. Signature (Agent) *RE*

4a. Article Number
P759800357

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
1-3-94

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Southern California Association of Governments
518 W. 7th Street, 12th Floor
Los Angeles, CA 90017
Attn: Eric Roth

5. Signature (Addressee) *[Signature]*

6. Signature (Agent)

4a. Article Number
P759800335

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
1/4/95

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

P 759 800 363



Certified Mail Receipt
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to	
Santa Clarita Transit	
Street & No.	
2963 W. Ave. Stanford	
P.O., State & ZIP Code	
Santa Clarita 91355	
Postage	\$
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Address of Delivery	
TOTAL Postage & Fees	\$ 3.43
Postmark or Date	

Is your RETURN ADDRESS completed on the reverse side?

SENDER: • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
3. Article Addressed to: Santa Clarita Transit 2963 West Avenue Stanford Santa Clarita, CA 91355 Attn: Ron Kilcoyne		4a. Article Number P759 800 363
4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise		7. Date of Delivery 1-3-94 AH
5. Signature (Addressee) 		8. Addressee's Address (Only if requested and fee is paid)
6. Signature (Agent) 		

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

Appendix E

CUMULATIVE PROJECT LIST

SANTA CLARITA VALLEY
 GENERAL PLAN/AREA PLAN AMENDMENTS
 To Be Included in the Santa Clarita Valley Traffic Model

Newhall Ranch Traffic Analysis

E-2

Austin-Foust Associates, Inc.
 105193.R2

Consider for Traf. Model?	Case No.	Proj. No.	Notes	Residential											Associated Tract Map(s)	Changes Needed to Buildout		Land Use in Model	TAZ
				Single Family	Multi- Family	Mobile Homes	Comm'l Acres	Comm'l Sq.Ft.	Hotel Rms	Indus'l Acres	Indus'l Sq.Ft.	Inst't'l Acres	Rec'l Acres	School		Date Base			
no	81	SP07202	denied	-	-	-	-	-	-	-	-	-	-	-	-	30502/35445			
no	110	LP00683	approved/on map	-	-	-	-	-	-	-	-	-	-	-	-	36655			
no	116	SP00983	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	36668			
no	153	SP02283	approved/on map	-	-	-	-	-	-	-	-	-	-	-	-	34966			
no	160	SP02483	denied	-	-	-	-	-	-	-	-	-	-	-	-	32030			
no	173	SP02783	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	33698			
no	174	SP00883	part of North River	-	-	-	-	-	-	-	-	-	-	-	-				
no	177	SP02983	approved/on map	-	-	-	-	-	-	-	-	-	-	-	-	37539			
no	214	LP00184	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	43115			
no	287	LP00982	approved/on map	-	-	-	-	-	-	-	-	-	-	-	-	43510			
no	312	LP02084	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	42508			
no	321	SP84021	approved/on map	-	-	-	-	-	-	-	-	-	-	-	-				
no	354	SP84028	approved/on map	-	-	-	-	-	-	-	-	-	-	-	-	35157			
no	357	SP84025	approved/on map	-	-	-	-	-	-	-	-	-	-	-	-	38943			
no	85005	LP85001	denied	-	-	-	-	-	-	-	-	-	-	-	-				
no	85007	SP85007	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	43896			
no	85187	LP85005	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	43729			
no	85191	SP85004	Canyon Park, adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	PM17271			
no	85207	SP85006	in '90 SCVAP update/no actvd	-	-	-	-	-	-	-	-	-	-	-	-	43743			
no	85340	SP85015	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	43750/44373			
no	85357	LP85018	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-				
no	85359	SP02883	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	43591			
no	85368	SP00883	withdrawn	-	-	-	-	-	-	-	-	-	-	-	-				
no	85368	LP85368	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	PM17646			
no	85573	LP85573	approved/on map	-	-	-	-	-	-	-	-	-	-	-	-				
no	85595	LP85595	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	PM17317			
no	86106	LP86435	approved/on map	-	-	-	-	-	-	-	-	-	-	-	-	PM20685			
no	86189	LP86189	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	31158			
no	86237	SP86237	in '90 SCVAP update/no actvd	-	-	-	-	-	-	-	-	-	-	-	-	31803			
no	86255	SP86255	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	44471			
no	86294	LP86294	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	PM18001			

Notes:
 SP: subplan amendment to the County General Plan
 LP: local plan amendment to the Santa Clarita Valley Area Plan
 PL: specific plan

Prepared by: Lee Stark, AICP
 R. Mamaghani, AICP
 1/3/98

SANTA CLARITA VALLEY
GENERAL PLAN/AREA PLAN AMENDMENTS
To Be Included in the Santa Clarita Valley Traffic Model

Newhall Ranch Traffic Analysis

E-3

Austin-Foust Associates, Inc.
10-1-02 R2

Consider for Traf. Model?	Case No.	Proj. No.	Notes	Residential										Instl'l Acres	Rec'l Acres	School	Associated Tract Map(s)	Changes Needed to Buildout Data Base	Land Use in Model	TAX
				Single Family	Multi- Family	Mobile Homes	Comm'l Acres	Comm'l Sq.Ft.	Hotels Rms	Indus'l Acres	Indus'l Sq.Ft.									
no	86343	SP/PL86343	Santa Fe Ranch	-	-	-	-	-	-	-	-	-	-	-	-	-				
			Inactivated by Impact Analysis; no activity since 1987																	
no	86365	SP86365	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	44800			
yes	86364	LP86364	approved/not on map	-	-	-	-	-	-	-	-4.8	47,000	-	-	-	-	-	add 47 tsf industrial space	see Footnote (1)	34B
			(4.8 ac. from M to HM; balance of project shown on map)																	
no	86442	LP86442	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	-	PM17949			
no	86484	LP86484	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	PM18229			
yes	86491	SP86491	Orsekside	916	824	-	-	-	173,000	-	-	-	-	-	-	-	44831	916 sf du's, 824 mf du's, 173 tsf commercial space	25,51,243	
yes	86522	LP86522	adopted/not on map	-	800	-	-	-	-	-	-	-	-	-	-	-	45023	repl. 55 sf du's w/800 mf 55 sf du's	19B	
no	86524	SP86524	in '90 SCVAP Update/no activ	-	-	-	-	-	-	-	-	-	-	-	-	-	32224			
yes	86539	LP86539		-	-	-	-	-	-	-	21.3	209,000	-	-	-	-	PM18161	add 209 tsf industrial space	see Footnote (1)	19B
no	87015	LP87015	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	45121			
no	87108	SP87108	in '90 SCVAP Update/no activ	-	-	-	-	-	-	-	-	-	-	-	-	-	45308			
no	87150	LP87150	inactive/part of Newhall Ranch	-	-	-	-	-	-	-	-	-	-	-	-	-	PM18108			
no	87172	SP87172	adopted/on map (Northlake)	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
no	87178	LP87178	LP withdrawn	-	-	-	-	-	-	-	-	-	-	-	-	-	44830			
			(tract found consistent w/Plan)																	
no	87222	SP87222	on LU Policy Map (Westridge)	-	-	-	-	-	-	-	-	-	-	-	-	-	45433			
no	87224	LP87224	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-	-	PM18500			
no	87262	LP87262	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	44832			
no	87287	SP87287	inactive environl file	-	-	-	-	-	-	-	-	-	-	-	-	-	44945			
no	87290	LP87290	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	PM18904			
no	87462	SP87462	changed to project #93147	-	-	-	-	-	-	-	-	-	-	-	-	-	PM20187			
no	87485	LP87485	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	44823			
no	87470	SP87470	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	43520			
no	87476	LP87476	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
no	87539	SP87539	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	45958			
no	88027	SP88027	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	45084			
no	88044	SP88044	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	46183			
no	88073	SP88073	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	PM20033			
no	88082	SP88082	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	47657			
yes	88139	SP88139		219	266	-	40	327,000	-	-	-	-	-	-	-	-	45883	add 219 sf du's, 266 mf du's, 327 tsf comm'l space	see Footnote (1)	152
no	88151	SP88151	withdrew	-	-	-	-	-	-	-	-	-	-	-	-	-	45440			

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SANTA CLARITA VALLEY
 GENERAL PLAN/AREA PLAN AMENDMENTS
 To Be Included In the Santa Clarita Valley Traffic Model

Newhall Ranch Traffic Analysis

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Austin-Foust Associates, Inc.
 1/5/19/ R2

Consider for Traf. Model?	Case No.	Proj. No.	Notes	Residential										Assoc'd Tract Map(s)	Changes Needed to Buildout		Land Use	
				Single Family	Multi- Family	Mobile Homes	Comm' Acres	Comm' Sq.Ft.	Hotels Rms	Indus' Acres	Indus' Sq.Ft.	Instit' Acres	Res' Acres		School	Rate Base	In. Model	TAZ
no	88173	SP88173	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	-			
no	88221	SP88221	withdrew	-	-	-	-	-	-	-	-	-	-	-	PM19784			
no	88280	SP88280	withdrew	-	-	-	-	-	-	-	-	-	-	-	48564			
no	88298	SP88298	to be consistent w/Plan	-	-	-	-	-	-	-	-	-	-	-	46648			
no	88312	LP88312	withdrew	-	-	-	-	-	-	-	-	-	-	-	-			
no	88320	SP88320	adopted/on map	-	-	-	-	-	-	-	-	-	-	-	PM20175			
no	88321	SP88321	withdrew	-	-	-	-	-	-	-	-	-	-	-	48389			
no	88382	SP88382	no activity since 1988	-	-	-	-	-	-	-	-	-	-	-	37539			
no	88422	SP88422	withdrew	-	-	-	-	-	-	-	-	-	-	-	35783			
no	88533	SP88533	withdrew	-	-	-	-	-	-	-	-	-	-	-	-			
yes	88587	LP88587	adopted/not on map (from U-2 to C)				20.1	164,000							44806	add 164 tsf comm'l space	see Footnote (1)	18
no	88598	SP88598	withdrew	-	-	-	-	-	-	-	-	-	-	-	46908			
no	88597	LP88597	withdrew	-	-	-	-	-	-	-	-	-	-	-	44821			
no	89017	SP89017	no activity since 1989	-	-	-	-	-	-	-	-	-	-	-	-			
yes	89033	SP/PL89033	Stevenson Ranch Phase 5 126 tsf retail, 197 tsf office, 150-ac golf course, 1 elem. school, 1 junior high, and 1 high school	1,828	1,572			323,000	350		1,600,000		242.0	3		see attached		75,76,77,79,96
no	89094	SP89094	amendmt to SP-1 (Canyon Pk) found consistent with Plan	-	-	-	-	-	-	-	-	-	-	-	47200			
no	89100	SP89100	included in '90 SCVAP update	-	-	-	-	-	-	-	-	-	-	-	-			
no	89128	SP89128	included in '90 SCVAP update	-	-	-	-	-	-	-	-	-	-	-	-			
no	89129	SP89129	included in '90 SCVAP update	-	-	-	-	-	-	-	-	-	-	-	-			
no	89130	SP89130	tract withdrawn	-	-	-	-	-	-	-	-	-	-	-	47447			
no	89140	SP89140	in '90 SCVAP update	-	-	-	-	-	-	-	-	-	-	-	-			
no	89149	SP89149	in '90 SCVAP update	-	-	-	-	-	-	-	-	-	-	-	-			
no	89151	LP/SP89151	withdrew	-	-	-	-	-	-	-	-	-	-	-	-			
no	89152	SP89152	withdrew	-	-	-	-	-	-	-	-	-	-	-	-			
no	89153	SP89153	withdrew	-	-	-	-	-	-	-	-	-	-	-	47848			
no	89155	LP89155	in '90 SCVAP update/no activ	-	-	-	-	-	-	-	-	-	-	-	-			
no	89158	LP89158	in '90 SCVAP update/no activ	-	-	-	-	-	-	-	-	-	-	-	47574			
no	89158	SP89158	in '90 SCVAP update/no activ	-	-	-	-	-	-	-	-	-	-	-	-			
no	89159	SP89159	withdrew	-	-	-	-	-	-	-	-	-	-	-	50588			

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SANTA CLARITA VALLEY
GENERAL PLAN/AREA PLAN AMENDMENTS
To Be Included In the Santa Clarita Valley Traffic Model

Newhall Ranch Traffic Analysis

Consider for Traf. Model	Case No.	Proj. No.	Notes	Residential											Associated Tract Map(s)	Changes Needed to Buildout Data Base	Land Use In Model	TAZ	
				Single Family	Multi-Family	Mobile Homes	Comm'l Acres	Comm'l Sq. Ft.	Hotels/Rms	Indus'l Acres	Indus'l Sq. Ft.	Instit'l Acres	Rec'l Acres	School					
no	89174	LP89174	withdraw	-	-	-	-	-	-	-	-	-	-	-	-	PM20839			
no	89182	SP89182	revised; consistent w/Plan	-	-	-	-	-	-	-	-	-	-	-	-	47760			
no	89247	SP89247	withdraw	-	-	-	-	-	-	-	-	-	-	-	-				
no	89293	SP89293	In '90 SCVAP update/no act/vl	-	-	-	-	-	-	-	-	-	-	-	-				
no	89393	LP89393	withdraw	-	-	-	-	-	-	-	-	-	-	-	-	48298			
yes	89418	LP89418	approved/not on map														add 101 mobile homes	see Footnote (1)	314
yes	89436	SP89436	Stevenson Ranch Phase 4	704	242			68,000								1 43896	see attached		97
			1 elementary school																
no	89625	SP89625	withdraw	-	-	-	-	-	-	-	-	-	-	-	-				
yes	90071	LP90071									24.5	240,000					add 240 tsf industrial space	see Footnote (1)	107
no	90115	SP90115	City Plan; no SCV Plan, amend	-	-	-	-	-	-	-	-	-	-	-	-	48086			
yes	90514	LP90514	adopted/not on map				2.5	20,500									add 20.5 tsf comm'l space	see Footnote (1)	58
no	90528	SP90528	withdraw	-	-	-	-	-	-	-	-	-	-	-	-				
yes	91110	SP91110									14	137,000				50592	add 137 tsf industrial space	see Footnote (1)	323
no	91140	SP91140	Included in Poe Phase 4	-	-	-	-	-	-	-	-	-	-	-	-				
yes	91317	LP91317		18												50070	add 18 sf du's	see Footnote (1)	11
yes	92074	SP92074	Clougherty Ranch	2,036	962		5.6	46,000								51644	see attached		6
no	92075	SP92075	on LU Policy Map	-	-	-	-	-	-	-	-	-	-	-	-	PM8075			
yes	92156	LP92156					2	16,000									add 16 tsf comm'l space	see Footnote (1)	350
yes	93147	PL93147	Bee Canyon Mobile Home Park	2		953											add 2 sf du's, 953 mobile homes		338
PROJ.	94087	SP/PL94087	Newhall Ranch																
yes	94151	LP94151	Valencia del Lago	-	-	-	-	-	-	-	-	-	-	-	-	51931	no action required	see Footnote (2)	241
no	94156	LP94156	U-1 & C to I							4.5	44,000						add 44 tsf industrial space	see Footnote (1)	314
yes	95084	LP95084	I to U-3 & C, HS II	336	466		25.3	150,000			589,000	44.6				52043	see attached		47
yes	95085	LP95085	detached condos	114												51995	add 114 sf du's	see Footnote (1)	18
yes	95118	-95118	North Village											206	1 34900	see attached		21,22,23,24,26	
			Includes additional 6-acre park, 200-acre golf course, and 1 elementary school																
yes			Reasonable and foreseeable development not associated with existing development proposals.	200															328
				200															1
			Totals	6,575	4,932	1,054	96	1,287,500	350	60	2,866,000	45	450	5					
See criteria for project consideration for inclusion in traffic model.																			
Footnotes:																			
(1) Existing land use in traffic model could not be specifically identified.																			
(2) Land use in traffic model matches project statistics.																			

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Austin-Foust Associates, Inc.
105193.R2

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Prepared by: Lee Stark, AICP
R. Mamaghani, AICP
1/3/96

Creekside

Newhall Ranch		
Cumulative List of GPA's		
Creekside (TM44831)		
As of Dec. 8, 1995		
	Add to the Cumulative Traffic Model	
Taz	1. SF	10. Com'l
25	360 DU	
51		57.00 TSF
243		57.00 TSF
Subtotal	360 DU	114.00 TSF

North Village

Newhall Ranch			
Cumulative List of GPA's			
North Village (TM34900)			
As of Dec. 8, 1995			
	Add to Cumulative Model		
Taz	Park	Elem School	50. Golf Course
26		1 elem school	
22			200 AC
23	8 AC		
Subtotal	0 DU	8 AC	

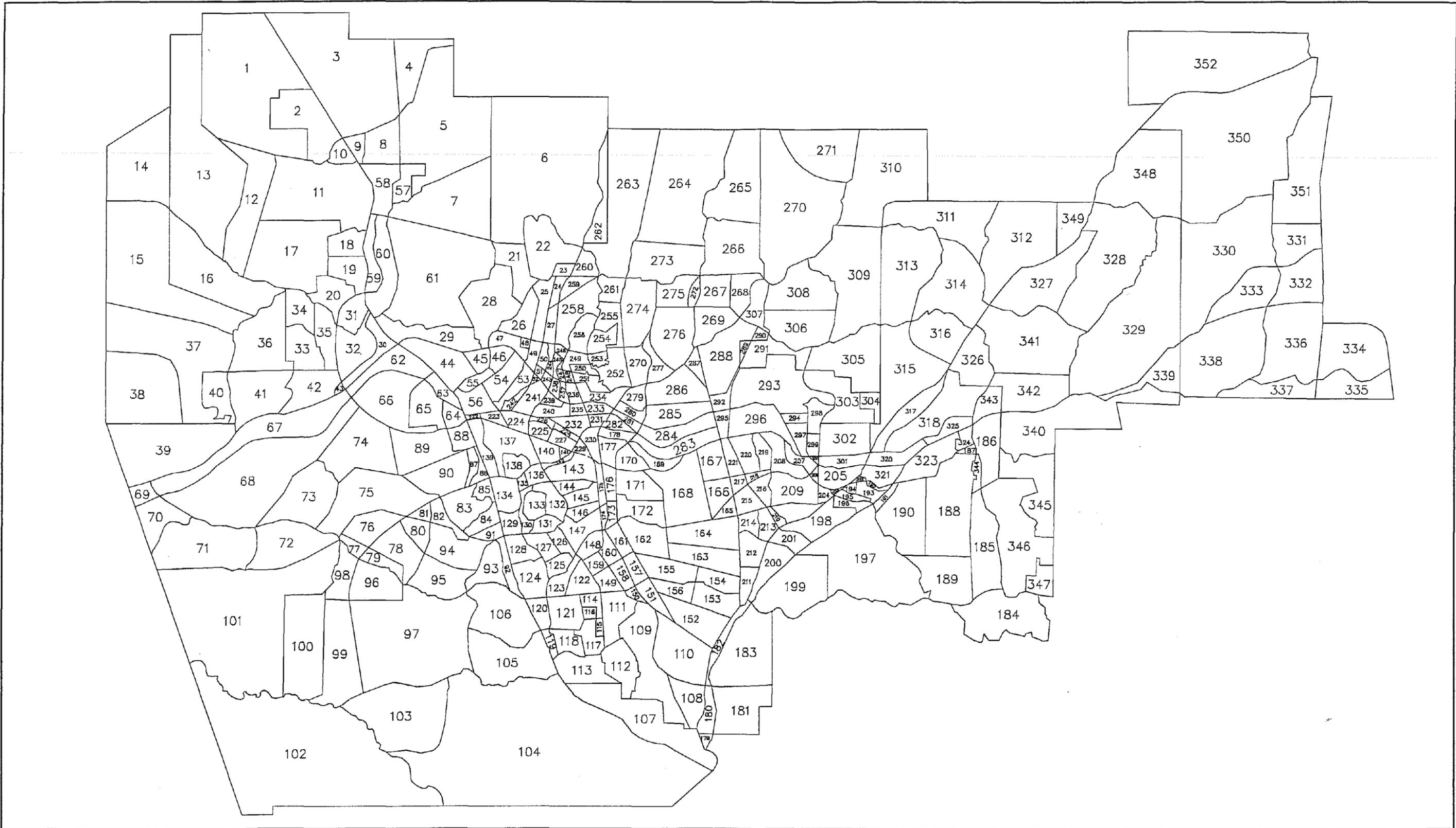


Figure E-1
SCVCTM TRAFFIC ANALYSIS ZONE MAP